ARTISAN

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· · The Magazine of

CENTRAL RESIDENTIAL AIR CONDITIONING

WARM AIR HEATING . SHEET METAL CONTRACTING

January

difectory lara show Inumber



### The only REALLY NEW Diffuser you'll see in 1960!

Ceiling Diffusers



Sidewall Registers



Floor Perimeter Diffusers 18" in overall length . . . with a beautiful, deep-glowing HIGH IMPACT POLYSTYRENE FACE that never cracks, rusts, or mars.

Only from Air Control's Department of Creative Engineering can you obtain such "years ahead" styling on EVERY product.

The sculptured lines of the "Super 38" blend into the decor of any style home. Although only 18" in length, you get a BIG 38 square inches of free area . . . plus a WIDE AIR PATTERN that blankets the wall with hot or cool air to assure maximum comfort at all times.

AND THE PRICE IS LOW ENOUGH to satisfy any builder, contractor, or even developer of multi-house projects.

Take a look at some of our other "years ahead" diffusers and registers.

A complete selection of diffusers, registers and grilles is available in addition to those illustrated . . . the largest line of its kind in the world.

Write today for Bulletin 267-AC on the "Super 38" or Catalog 58-AC...a complete story on all Air Control registers and grilles.

COPYRIGHT DES-ACP, 150

Baseboard Perimeter Diffusers AIR CONTROL PRODUCTS, INC.

160 Center Street

Coopersville Michiga



# SUNDSTRAND FUEL UNITS

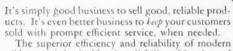
BACK YOUR BURNERS

SUNDSTRAND SERVICE

BACKS YOUR BUSINES



GENUINE PARTS



The superior efficiency and reliability of modern oil burners is backed by the reliability of Sundstrand fuel units. Sundstrand service policies help keep your customers sold with prompt, thorough service when and where it is required.

when and where it is required.

88 Sundstrand Certified Service Centers are conveniently located throughout the country to provide expert service and quality parts. In addition, Sundstrand's service training schools annually qualify hundreds of men to help heating contractors and boiler manufacturers install, adjust, and service their Sundstrand equipment properly. It's simply good business to specify Sundstrand fuel units.



### SUNDSTRAND HYDRAULICS

DIVISION OF SUNDSTRAND CORPORATION

2210 Harrison Avenue, Rocklord, Illinois • Eastern Sales Office: 89 Summit Avenue, Summit, N. J.
Made in Canada by John Inglis, Ltd., 14 Strachan Ave., Toronto; In Sweden by Sundstrand Hydraulic
AB Stockholm; in France by R. S. Stokvis, et Fils, S.A., 20-22 Rue Des Petits-Hotels, Paris

### AMERICAN ARTISAN

... The Magazine of

CENTRAL RESIDENTIAL AIR CONDITIONING

WARM AIR HEATING . SHEET METAL CONTRACTING

### JANUARY 1960

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Century Electric fhp motor installed on double entry blower.

# Why Century Electric motors give quiet, dependable service

Century Electric motors designed for the air conditioning and warm air heating industry help reduce costly service calls. Here are a few of the features that give quiet, dependable operation.

QUIET BECAUSE cushion base has resilient rings which keep motor from metallic contact with base. Result: reduced transmission of sound vibrations.

QUIET BECAUSE it has sleeve bearings. The shaft floats on a film of oil. You can pull the belt up without getting any bearing rumble.

QUIET BECAUSE rotor bars, end rings and fans are all integrally cast of aluminum. Rotor is dynamically balanced to assure extra smooth operation.

DEPENDABLE BECAUSE lubricating method

is designed to withstand warm air furnace operating conditions.

DEPENDABLE BECAUSE insulation consists of bonded paper and "Mylar" slot cells and high temperature baking varnish. Result: high mechanical and dielectric strength.

DEPENDABLE BECAUSE of features like trouble-free governor; automatic thermal overload protection; positive grounding strip on cushion rings and pressure cast aluminum bearing brackets.

Also available: Two-speed motors for combination heating—air conditioning units; and 56-frame motors when half horsepower capacity and larger is required. For more information contact your nearest Century Electric Sales Office or Authorized Distributor.

### CENTURY ELECTRIC COMPANY

St. Louis 3, Missouri Offices and Stock Points in Principal Cities



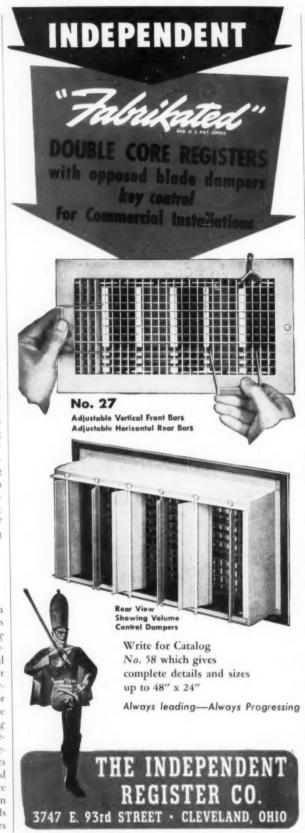
### the editor's notebook

### Thumbing Through This Month's Artisan

... we find a wealth of special offerings, notably the 1960 annual Directory of Residential Air Conditioning, Warm Air Heating and Sheet Metal Products, and the complete guide to the Second Southwest Heating & Air Conditioning Exposition. We find in the 160-page directory section a complete listing of manufacturers' names and addresses, trade names and products advertised in this issue, plus alphabetical classification of all the industry's products and the manufacturers of each. In the sixpage show section we find a floor plan of exhibits in Memorial Auditorium, Dallas, plus a complete listing of exhibitors, the products they display and booth numbers. These special sections are "extras" in an already big issue containing more editorial space devoted to timely technical, merchandising and management topics than usual, and reports on the important developments at the NWAHACA and NHAW conventions in St. Louis last month

### Standards

... we call on a dealer-contractor who lets American Artisan's Heating Standards Clinch Modernization Sales after he has lined up prospects via newspaper advertising, customer referrals and a reputation for quality work. We see how he uses the Standards for Rating Heating Systems card to describe the comfort he prescribes, in language prospects understand, and we applaud his answer to prospects' price objections, which is based on comparison of his proposals with those of his competitors



### the editor's notebook

(Continued)

in terms of the "Good" and "Poor" system ratings on the card.

### Convection

. . . and we analyze a year 'round air conditioning job in a stone-walled, two-story house with full basement and decide a Radiant-Convection System Combines Benefus of two efficient arrangements and is compatible with summer air conditioning. We heat the first floor and basement with a panel-convection system which supplies conditioned air to each area through a plenum formed by the open space between the basement ceiling and the upstairs floor. We find the perimeter arrangement chalks up highly satisfactory performance records throughout the house.

### Standardization

... we delve further into James H. Stiggleman's three-part review of the very important new tool which narrows the gap between sheet metal contractor, mechanical engineer and architect. This discussion: SMA-CNA Sheet Metal Duct Manual Standardizes Special Connections, Shapes, presents plates, descriptions and analyses of important points in part two of the manual. We recognize from this condensation that the new duct manual ranks as one of the longest strides in the history of the sheet metal trade-a big step toward standardization.

### Gain

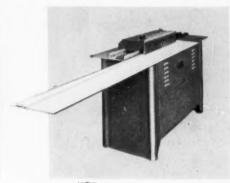
... and we are advised to Show Builders How to Control Heat Gain, as part

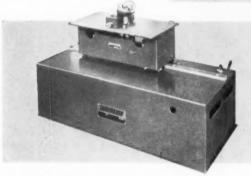
# ARE YOU REALLY COMPETITIVE IN DEPARTMENTS?

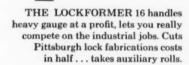
If you are, the equipment lineup in your sheet metal shop probably looks like this...

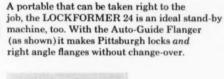
Here's the workhorse of the team—the LOCKFORMER 20 rolls right angle flanges on straight pieces, double seam locks and drive cleats in addition to Pittsburghs. The Slitting Attachment shown gives you power shearing for a fraction of the cost of a foot-operated shear . . . and won't interfere with the "20's" built-in or auxiliary rolls.













The CLEATFORMER for all the cleats you need without tying up your Lockformers . . . rolls both "S" and drive cleats 10 to 20 times as fast as with other methods.



And the
LOCKFORMER
24S BAND SAW
handles all cutting
jobs, including
stainless steel and
stacked sheet metal.
Three speeds,
24-in. throat and
it's built for
production work...
pays for itself
in no time.

This all-department Lockformer team keeps you competitive with anybody and you'll show bigger profits than ever, too. Any questions? Ask us . . .

Howdy Pardner . . . See you in Dallas at the Southwest Heating and Air Conditioning Show, February 1 to 4—Booth No. 1205

manufactured by

THE LOCKFORMER COMPANY
Dept. A, 4615 West Roosevelt Road, Chicago 50, Illinois

TIME SAVING, MONEY MAKING EQUIPMENT

In Canada: Brown Boggs Foundry & Machine Co., Ltd., Hamilton, Ontario

### the editor's notebook

(Continued)

of our advisory service as air conditioning dealer-contractors. We study the natural factors-direct and indirect solar radiation, temperature difference, etc.--and structural factors-orientation, insulation, shading, ventilation, etc.-affecting heat gain in a residence, and determine methods of controlling their effects on heat gain into the conditioned area so we can help homeowners, general contractors and architects install better cooling jobs and thereby line up future sales.

### Here's Easy Way to Get Product Information

THIS YEAR, American Artisan is making the January issue more valuable than ever. We've inserted a reader's service card just ahead of the directory section (yellow pages) to help you get more information about the products advertised in this issue. The post-paid card lists all advertisers by page numbers. All you need do is circle the page number of the advertisement in which you are interested, fill in your name and address, and drop the card in the mail. American Artisan will notify the manufacturer of your interest and will ask him to forward the information you want.

Feel free to use the card now or during the year.

### Yes, But Is It Worth It?

LAST MONTH at the Northamerican Heating & Airconditioning Wholesalers' convention in St. Louis, Reggie Hesling, president, Climate Distributing Co., Van Nuys, Calif., handed me a verse I thought you'd like. Here it is:

He stood before the pearly gates,

His face was scarred and old.



### the editor's notebook

(Continued)

He stood before the man of fate For admission to the fold.

'What have you done?" St.

Peter said, To gain admission here?" "I've been a heating dealer,

For many and many a year."

The pearly gates swung open wide.

wide, St. Peter touched the bell.

"Come in and choose your harp, my friend,

You've had your share of hell."

### Says Associations Need 'Statesmanship'

I LIKE the way Gilbert Faye, executive director, Roofing & Sheet Metal Crafts Institute, summarized "Today's Opportunity for Trade Associations." Mr. Faye puts it this way:

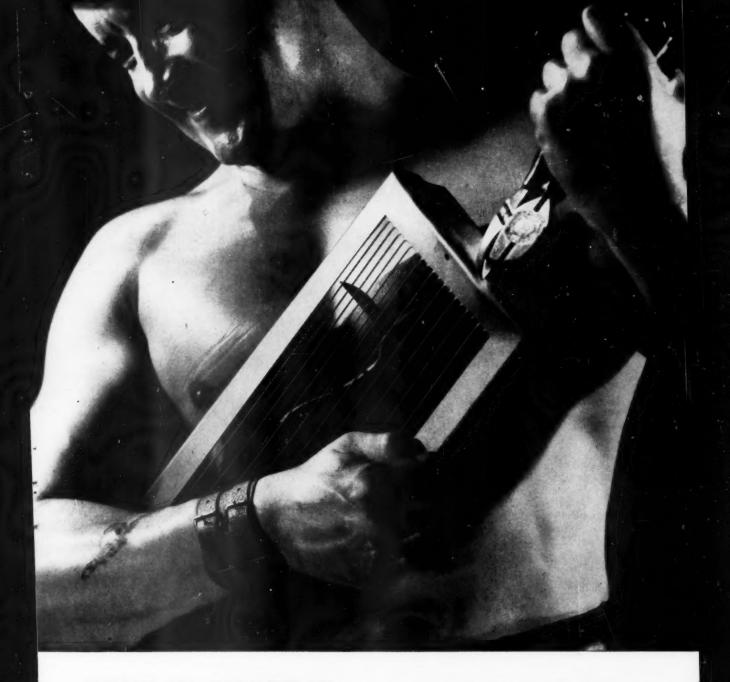
"Most trade groups, like most companies, started in a small way. They were formed for a specific purpose or to meet a specific need.

"Many associations date back to the days when U. S. government first became an important factor in business. Many others were started to eliminate, as far as possible within the law, certain unnecessary competitive evils. It would be rather hard to find any trade group that commenced life with a broad, general program.

"Some leading associations have become powerful voices for their industry's good.

"We hear a lot about business statesmanship. We see far too little of it. Yet the association movement needs such statesmanship today as never before.

"Recently I went to a convention. I was impressed by the statesmanlike attitude of some of the speakers. I was more impressed by the fact that these speakers were far



BEND IT, TWIST IT ... it's tough as nails! That handsome Epon® finish on Lima Registers is here to stay-actually pulled electrostatically into crevises, around corners, and baked on permanently. Even punishing treatment pictured shows no chipping or flaking! Never a rust problem. Another Lima Mark of Quality that pleases customers - pays off for you. Send for latest Lima catalog of Registers, Diffusers and Grilles.

INSTALL LIMA FOR HEATING & COOLING LIME REGISTER CO., LIMA, OHIO

### the editor's notebook

(Continued)

more progressive in their views than the statements released by the association of which they are members.

"I wonder if there is a kind of Gresham's law of trade association practice which says that publicly the association shall represent the views of its most conservative members? I hope it isn't a law because such a condition would be very bad for the reputation of associations."

### Need Texts for Dealer Schools? Try These

WE are always pleased to learn about dealer schools being held by wholesaler organizations and particularly pleased when we are asked to provide text material for these schools. This letter from Paul E. Trumbull, president, Pacific-Coast Heating Co., is typical:

"We have a copy of your publication, Correct Practice in Residential Cooling, reprinted from issues of American Artisan. Would you please be kind enough to quote us prices on this issue in lots of 12 or more copies? We are a wholesale distributor of heating and air conditioning equipment, and would like to use this as a textbook in our air conditioning schools."

Other heating and air conditioning wholesalers seeking text material for their dealer schools will find that the reprint books on heating as well as those on summer air conditioning will be an asset to their training programs. For a list of the reprint booklets available, write me in care of American Artisan.

### Try This Technique At Next Sales Meeting

EACH YEAR at the University of Buffalo an annual creative problem-solving meeting is



### XXTH CENTURY

HEATING & VENTILATING CO.
Since 1894

96 IRA AVE.

AKRON, OHIO

### the editor's notebook

(Continued)

held. The basic objectives of this institute are:

Self-Improvement—To enable members to enhance their own creative ability.

Education—To teach members how to teach others.

Operational Use—To train members in the use of proven techniques for maximum effectiveness.

Leadership—To prepare members for leadership in organizing and conducting their work.

Knowledge—To enlighten members on the latest developments in the field.

Interchange—To provide opportunity for members to confer personally with each other and with experienced leaders.

These excellent objectives could very well be made a part of every sales meeting conducted by dealer-contractors, wholesalers or manufacturers. Each of these objectives can be developed very readily into subjects designed to make sales meetings both more interesting and more effective.

### Makes Cardboard Model For SM Layout Problems

IN A RECENT letter Hugh B. Reid, who writes our monthly Pattern Layout Problem, said:

"In our classes at Wilbur Wright Tech, it is required of the students that they make a carboard model of each problem as they progress through the required course work. This method of teaching provides experience in fabricating the work, checking the work and forming the component patterns to the required shapes. This has proven to be very helpful to them in their studies and shop work."

If you are a consistent reader of Mr. Reid's Simplified Layout techniques, you'll find

### ONE SOURCE OF SUPPLY

Pipe, Duct and Fittings for
Heating — Cooling
and
Rain Carrying Equipment



Regardless of your needs STANDARD has all types of pipe, duct and fittings for that specific job.





No. 54 BUTTERFLY DAMPER Put Pend.

STANDARD has the most modern equipment for manufacturing pipe and littings and rain carrying equipment. Year round production assures ample stocks of made-up goods.

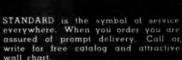
Sturdy uniform packaging simplifies in-

Sturdy uniform packaging simplifies inventory, simplifies handling and shipping.









PHONE REgent 1744





STANDAD

METAL FABRICATING CO.
7311 Jones St. Omaha, Nebraska

AVAILABLE THROUGH LEADING WHOLESALERS

### the editor's notebook

(Continued)

this an interesting suggestion and it will prove that many of the steps formerly necessary for laying out fittings can be eliminated with no sacrifice to the accuracy of the fitting being developed.

Mr. Reid has produced two books, "Sheet Metal Layout Simplified," (\$5.50), and "Sheet Metal Layout Simplified, Triangulation." (\$6.50). If you would like to obtain copies, write direct to Mr. Reid, 14189 Marion Ave., Redford Township, Detroit 39, Mich.

### What Are Causes Of Business Failures?

HERE'S ANOTHER SBA "rule to manage by":

Small Business Administration Washington, D.C.

Dear Mr. Barnes:

In December, when I wrote you my definition of a successful business, I promised to discuss good management techniques in my following letters.

Keep in mind that the owner of a small business is the cause of its success or failure. If management is so important, what constitutes good management?

Some time ago, Dun and Bradstreet stated that the owners of businesses that had failed fell into three broad groups: 1) those who did not have the capacity to manage a business successfully; 2) those with insufficient experience; and 3) those with unbalanced experience.

There is not much that needs to be said about the man who does not have the capacity to manage his own business. There are probably other vocations that he can follow with success, but to keep him in business, by making him a loan, for example, is to prolong his



### the editor's

(Continued)

business life until later, when his losses — and those of his creditors — will be still greater.

In the past, many men who started in business for themselves were inexperienced but, fortunately for them, conditions moved slowly and changed so little that by the time a major decision had to be made, experience was sufficient to meet it. Conditions have changed today. Things do not change slowly. They happen overnight. Today the successful businessman must gain more of his experience while working for someone else and not in his own business. In fact, by working for a successful operator, he not only has a good job, can save and prepare for the day when he will start on his own, but he can observe what his boss does that makes him successful

This same technique can be put to work by dealercontractors who will study the operations of other successful dealer-contractors. It is undoubtedly true that today many men who are starting their own small businesses have gained their experience as employees of large businesses or as department heads. There can be no substitute for experience.

I've covered two of the three reasons listed by Dun and Bradstreet for business failures. Next month I'll cover the third reason — unbalanced experience.

Sincerely, Wilford White, Director Office of Management and Research Assistance

This third reason is an important one. You won't want to miss it next month.

Clyde M. Barnes





HI-BOY MODELS

HTS GAS FIRED 80,000 to 125,000 BTU per hr. input.

HTL OIL FIRED

.65 gal. to 1.0 gal. per hr. firing rate.



HORIZONTAL MODELS

NMS GAS FIRED

70,000 to 140,000 BTU per hr. input.



WTS GAS FIRED

80,000 to 125,000 BTU per hr. input.

WTL OIL FIRED

.65 gal. to 1.0 gal. per hr. firing rate.



AIR-EASE

### BASEMENT MODELS

BTS GAS FIRED

100,000 to 200,000 BTU per hr. input.

BTL OIL FIRED

.72 gal. to 1.50 gal. per hr. firing rate.



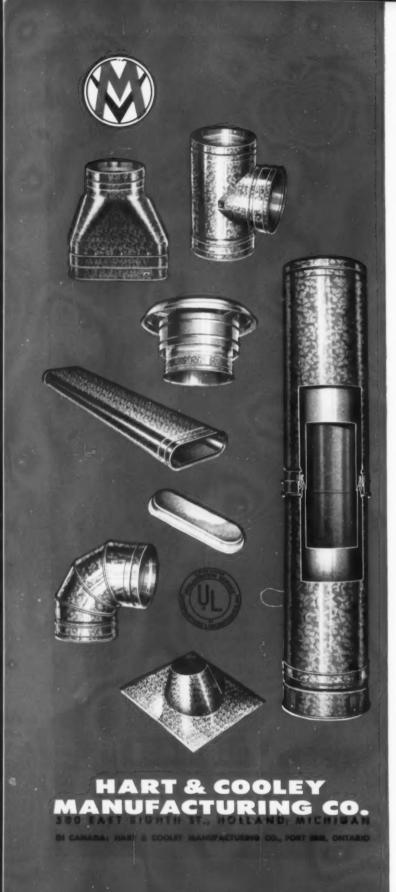


1-0

COOLING

Combination Units from 2 to 5 ton capacity. Add-on Units from 2 to 10 ton capacity.

THE JOHNSON FURNACE COMPANY
2129 WEST 117th STREET; CLEVELAND 11, OHIO



# "SAVES \$\$\$ ON LABOR COSTS..."

Here is an actual statement by an installer: "Metivent saves us about 25% of our labor cost because it is easier to install."

This comment is typical of the reaction of installers who have tried and are now using Metlvent gas vent pipe and fittings. Different men cite different reasons why they are particularly impressed with Metlvent . . . some mention the convenience of having the same type lock on all sizes . . . some like the extra strength created by the rolled edge . . . others compliment Metlvent for the fourpiece offset elbow that ends the nuisance of using two 45° elbows . . . easy dismantling as well as assembly, and exceptional construction quality and appearance are also frequently cited. To sum it all up, it is rare that a new product in this field meets with such enthusiastic acceptance. See your H&C Jobber . . . find out why installers who try Metlvent stick with it!



See our exhibit at the 2nd Southwest Heating & Air-Conditioning Exposition — Dallas, Texas, Feb. 1 to 4 — Booth No. 1023



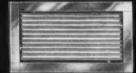
No. 76 Fin type face air conditioning register with multi-shutter valve very popular.



No. 74 The low-cost QUALITY air conditioning register.



TRIPL-AIRE® REGISTERS and GRILLES for commercial installations provide every combination of deflection desirable.



FIXT-AIRE® REGISTERS and GRILLES are the perfect complement to our TRIPLE-AIRE line for ideal commercial installations.



No. 401 SIDEWALL DIFFUSAIRE(ID (Perimeter) blankets wall of average room. Positive volume control valve.

No. 411 FLOOR DIFFUSAIRE (Perimeter) has opposed louvers for perfect air pattern. Positive balancing adjustment,

installation. Balanced at face.





...AND FOR 100%
SATISFACTION
RELYON H&C
GRILLES, REGISTERS
AND DIFFUSERS

... SATISFACTION with the prouct, SATISFACTION with the service, SATISFACTION with the results.... you'll be 100% satisfied
with H&CI Tep notch quality in
units engineered for each and
every type of installation... fast
service because of large scale
production, large stocks of standard Items and central location...
assured results because H&C engineering data is complete, accurate and reliable. For 100%
SATISFACTION, see your H&C
Jobber soon!



HART & COOLEY MANUFACTURING CO.

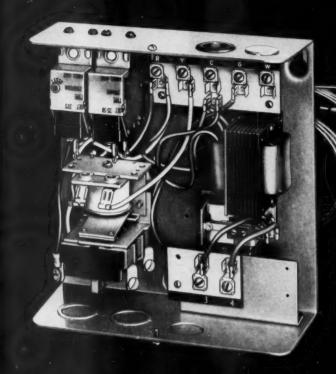
IN CANADA: HART & COOLEY MANUFACTURING CO., POLY SKIE, ONTARIO

### **COOLING CENTER** . . . controls the remote condensing unit. Internal circuits are factory-wired. COOLING **FAN CENTER** ... controls the air handling equipment on all systems with remote condensing units. ALL-NEW! CENTER "CODED"

### RIMSET thermostat ... just dial the rim!

Here's the room thermostat to use on all of your heating-cooling jobs. It is easier to set...easier to read...simply dial the rim, the scale remains stationary. It is easier to install...leveling is not essential. It has snap-acting contacts... no "teetering" to cause undesirable "on-off" operation. It has various sub-bases for 12 different heating-cooling jobs. And, it has modern styling and beauty.





### SYSTEM CENTER

... for self-contained systems interlocks in one unit all heating-cooling functions.

# AIR CONDITIONING CONTROL CENTERS

### with color coding of all internal wiring!

COLOR CODING is today's biggest, most welcome news in Control Centers for residential air conditioning. It makes servicing... when and if required... extremely easy and fast! It saves time... saves money... and avoids system shutdown!

In Penn's newest line of Control Centers, field-replaceable components are easy to get out...easy to get in *correctly* because all internal wiring is color coded. And, all color-coded leads are equipped with quick-connect terminals... no more looping of

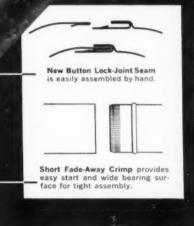
wire or soldering connections.

There are other advantages, too! Centers are small to save space in compact 2 and 3 H.P. units, yet they are easily accessible. Wrap-around cases save wiring time in factory and field. And, field-installed Fan Centers have Life Guard reverse panel construction. All operating parts are easily accessible, yet are fully protected against accidental damage. Write to the factory for the complete story on these new, better Penn Control Centers.

PENN CONTROLS, INC. Goshen, Indiana

EXPORT DIVISION: 27 E. 38th ST., NEW YORK, N.Y.

# NEW **MILCOR BUTTON** LOCK-JOINT FURNACE PIPE



### Easy Locking ... Easy Starting

Easiest-locking seam on the market. Start one end and the rest of the seam clicks together with little more than fingertouch pressure. Closely spaced buttons provide continuous lock for entire length of seam. All the joints you need for the job are assembled in minutes — no lost time or effort.

Quick-starting, snugly-fitting connections. Short fade-away crimp on male end of joint guides end quickly into connect-ing joint. Entire distance from end of crimp to bead provides bearing surface - forms tight, secure connection without use of

New Milcor Button Lock-Joint Pipe is offered in 30"-, 60"- and 120"-long joints in popular sizes and gauges. Made from Ti-Co Galvanized Steel. Ask your jobber or write to us for further information and prices.

Member of the ATTAND Steel Family

#### One dependable source for all your sheet metal products

You can stake your reputation on a Milcor installation.



Heating and r Conditioning Products









### INLAND STEEL PRODUCTS COMPANY

INLAND STEEL PRODUCTS COMPANY
DEPT. A, 4023 WEST BURNHAM STREET, MILWAUKEE 1, WISCONSIN
BALTIMORE, BUFFALO, CHICAGO, CINCINNATI, CLEVELAND, DETROIT, KANSAS CITY,
LOS ANGELES, MILWAUKEE, MINNEAPOLIS, NEW ORLEANS, NEW YORK, ST. LOUIS
SM-3
SM-3

### Work on Program For Western Show

Los Angeles-Arthur J. Hess, vice president of the Western Air Conditioning Industries Association, reports that program plans for the forthcoming biennial Western Air Conditioning, Heating, Ventilating and Refrigeration Exhibit and Conference include an Engineers' Day. Contractors' Day and Practical Applications Day. According to Fred J. Tabery, exhibit manager, the number of exhibitors at this year's show, which will be held April 27-30 at Shrine Exposition Hall, Los Angeles, is almost double the number who contracted for space at the previous show.

Subjects scheduled for discussion include fan auxiliary equipment, high velocity duct systems, temperature control systems, heat pumps, cooling towers, air conditioning in schools, and importance of ventilation in air conditioning.

### Record Air Conditioning Sales Seen for Year Ahead

Washington, D. C. — The air conditioning and refrigeration industry, which had the best year in its relatively short history in 1959, expects to break all sales records in 1960, according to George S. Jones Jr., managing director of the Air-Conditioning and Refrigeration Institute. While all the figures for 1959 are not vet reported and tabulated, Mr. Jones stated, the growth trend already shown is enough to convince industry observers that 1959 sales of all products in the field will run as much as 20 percent ahead of 1958. and 10 to 15 percent ahead of the best previous year — 1956.

Manufacturers' shipments of compressors, ARI says, were running about 40 percent ahead of 1958 for the first three quarters of 1959. Sales of unitary air conditioners are also expected to show a large gain in 1959, with estimates placing the shipment figure for the year at 320,000 units, compared with 231,000 in 1958. Unitary equipment includes all central residential installations and many smaller commercial and industrial packaged applications. As central residential installations have, over the years, accounted for more than 60 percent of unitary sales, the institute estimates that some 200,000 U. S. homes were centrally air conditioned in 1959. This is more than double the home installations sold five years ago.

Gains made by the heat pump are even greater than those indicated for unitary cooling equipment, according to ARI. Preliminary figures show that almost 40,000 unitary heat pumps were shipped by manufacturers in 1959, compared with about 25,000 in 1958, and fewer than 2000 in 1954.

The institute points out that one of the factors behind the 1959 gains of unitary equipment was the ARI Unitary Certification Program launched at the beginning of the year to stabilize and standardize capacity ratings of this type of equipment and thus provide the purchaser with a yardstick in the purchase of home cooling. About 90 percent of the manufacturers of unitary air conditioners are participating in the program, which will be publicized even more widely during 1960.

### 1960 a Record-Breaker, Economists Say, But Boom Will Lack 'Buoyancy' of '59

New York City—Economists see 1960 as a record-breaking year in most respects, but they are somewhat less enthusiastic about the outlook than they were a year ago. This was the consensus of 273 of the nation's leading economists in business, government and universities polled by F. W. Dodge Corp. in its annual survey of economists' opinions on the business outlook.

A sizeable majority of the economists (65 percent) expect total activity, as measured by Gross National Product, to rise steadily during the year, according to Dr. George Cline Smith, Dodge vice president and economist. But, he pointed out, this is a distinct lessening of optimism from last year's survey, when 86 percent forecast a steady rise during 1959. The average expectation of the

economists participating in the current survey is that Gross National Product will reach an annual rate of \$514 billion by the fourth quarter of 1960, a gain of 6 percent over the mid-1959 level. The Federal Reserve index of industrial production is expected to rise 3 percent from the mid-1959 level, reaching 160 by the end of next year. Over the same period, wholesale and consumer prices are estimated at one to two percent higher, Dr. Smith reported.

In summary, Dr. Smith said, there is no question but that the economists expect business to be very good in 1960, with rising personal income, higher wages and greater output in most industries. But, he added, the general impression seems to be that the boom will not have the buoyancy it had in 1959.

### Oil Heated Homes Up 6% in Indiana

NEW YORK CITY—Indiana is among the leading and fastest growing states in the number of oil heated homes, according to the National Fueloil Council. The council reports that at the end of 1959, 210,233 Indiana homes were heated with oil, an increase of 6% over the previous year.

(More news on page 24)

# HUSSEY COPPER'S WORKABILITY MEANS ON-SITE SAVINGS

One of copper's biggest advantages in building products is its workability. Copper is easy to work with . . . easy to form on the job . . . easy to join . . . easy to solder . . . and its flexibility serves you in the tight spots, where hand forming is essential. It makes your job easier every inch of the way—saving you both time and money.

Hussey produces a wide range of copper building products to meet every copper need. Specify Hussey to be certain you're getting the finest quality copper available.

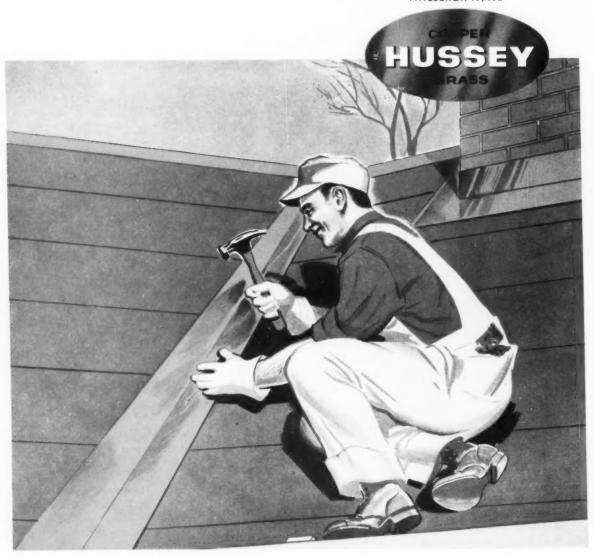
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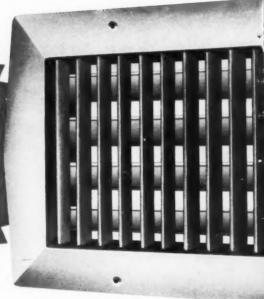
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Registers and Grilles in popular sizes and various bar combinations.



follows its success in Molded Ceiling Diffusers by introducing Multi-Louver Registers, Single and Double Deflection Grilles, and Curved-Blade Diffusers!

The All-New aristocrat Series 400"

After more than a year of research and development, careful material tests, and top-calibre styling surveys, AirGuide now brings you the ultimate in heating and air-conditioning grilles, registers and curved-blade diffusers.

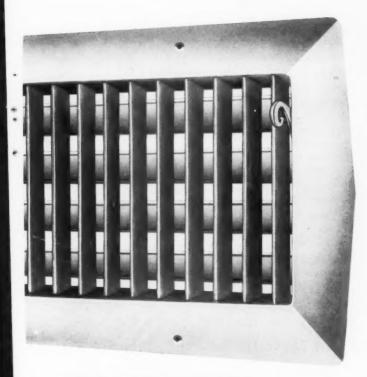
Here is a sensationally priced line that offers exciting originality and the only positive approach to rust elimination—plus real noise reduction. The extraordinary "sound barrier" characteristics of high-density NYLON, today's great advance in strong-like-steel molding compounds, permits higher jet velocities—without whistling or roaring! . . . And exclusive, self-sealing Air-Loc® provides a permanent air-tight closure.



Deluxe contour design and two-tone Dawn Gray color styling by Mr. Morris Lapidus, A.I. D., internationally famous designer of the Fontainebleau, Eden Roc, Americana and Algiers Hotels in Miami Beach.







- LOW COST
- **UNBREAKABLE**
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- NO CONDENSATION
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### **CHECK THESE FEATURES!**

- Individually adjustable air-foil bars.
   No spring wires or rivets to work loose!
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- Two-tone Dawn Gray "matte" finish harmonizes with any decor. Surface can be painted!
- Simple installation four cadmium plated screws included!
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- NYLON cannot dent, chip, discolor in shipment or in use!
- Lightweight less shipping weight, easier handling, compact storage!

Opposed blade damper, also of NYLON features overlap, providing maximum closure.

Write today for further information, prices!

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Line includes Curved Blade Diffuser, newest in sidewall and ceiling air delivery!



Exclusive Air-Loc® has positive seal-to-wall upon installation. No gaskets! No air leaks!



### AND REMEMBER...

AirGuide step-down design Ceiling Diffusers have been proved in use. All the properties and unique features of NYLON, plus deep-sculptured wide anti-smudge contour design of highest priced diffusers! Scientifically engineered compound curves assure high-capacity air distribution!

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We are Distributors	Contractors	Engineers	
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### Builders Forecast 10% Drop In 1960 Dwelling Units

Washington, D. C. — The housing market in 1960 will be characterized by tight money which will produce, in turn, a 10 to 12 percent drop in the year's volume of dwelling units to be built. This was the consensus of 25 home builders who met recently at the National Housing Center in Washington to discuss builders' intentions for 1960.

The builders were selected as representative of the home building market in their respective areas.

According to W. Evans Buchanan, chairman of the conference, "Sales housing will suffer most at the low price and high price ends of the market. Medium priced housing starts are expected to be down, but not as severely.

"Virtually every cost connected with home building is expected to be higher in the coming year, Labor, materials and land are on the rise

# Gas Industry Ready To Meet Demands Of Decade Ahead

NEW YORK CITY—The Gas Appliance Manufacturers Association reports that the industry is preparing for the likelihood that within the next decade the U. S. population will reach 200,000,000. To meet the demands of this growing population, GAMA states, gas equipment manufacturers have readied an array of new products and are investing record sums in product research and market study.

Rapid technological progress has been made in the field of gas heating and air conditioning, according to Harold Massey, GAMA managing director. New gas furnaces, he says, "are no bigger than two- or threedrawer filing cabinets and require

(Continued on page 30)

throughout the country. Increases in the expenses of development, financing and selling of new homes are also foreseen, and the local taxes are reported to be increasing in nearly every area. Only insuring costs on property are expected to remain stable."

Builders were nearly unanimous in their expectations that the tight

(Continued on page 28)

### Automatic Oil Heating Industry 75 Years Old

NEW YORK CITY—The Oil Heat Institute of America will capitalize on the fact that 1960 is the 75th anniversary year of automatic oil heating by reminding the American public of the contribution automatic oil heat has made to the standard of living and by pointing up the continuing advances and refinements in this

(Continued on page 28)

### Stepped-Up Modernization Sales Can Offset Drop in New Home Installations

Washington, D. C.—Shipments of forced warm air and gravity furnaces in 1960 are expected to aggregate 1.347,000 units (about 67,000 less than the 1,414,268 shipped in 1959), according to the Business and Defense Services Administration. U. S. Department of Commerce. The decline in shipments from 1959 is predicated partially on an expected decrease in the volume of residential construction in 1960. However, while the decline in housing starts is definitely an unfavorable factor, it is expected that the resultant loss of business will be mitigated by the large proportion of warm air furnace modernization and replacement sales. It is assumed that the nation's total output of goods and services will continue to rise, which should result in furnace modernization and replacement sales at least equal to those of 1959.

The gravity furnace, which finds its principal market in those areas not presently served by electricity, has seen its market steadily diminishing through the years. It is believed, however, that for the time being gravity furnace shipments will stabilize at the current rate of slightly more than 4 percent of total warm air furnace shipments.

The increased application of warm air heating systems in schools is anticipated. This relatively new market for warm air heating is being exploited with increased success. Increased sales have been made of direct duct type furnaces and of horizontal suspended models. The development of these units offers a market potential which previously has existed chiefly for other types of heating equipment.

It would appear, therefore, that manufacturers of warm air heating equipment should have another year of high sales, notwithstanding the expected fewer residential housing starts.

### Purdue Course To Stress Selling, Good System Design

LAFAYETTE, IND.—Objectives of the annual warm air heating and cooling short course which will be offered at Purdue University Mar. 14-17 are:

1) to impress the dealer-contractor and his employees with the many advantages of the air distribution system and its important functions of

(Continued on page 32)

# Most durable umbrella a store said the contractor about the Revere Copper Roof on McInerny's Waikiki on the grounds of the Royal Hawaiian Hotel, Honolulu, Hawaii



### 35,000 lbs. of Revere Cold Rolled 16 oz. Copper applied by Oahu Plumbing & Sheet Metal, Ltd.

"As far as we know, this is the only specialty store of men's women's and children's apparel and accessories in the world with an all-copper roof," continued Mr. Francis F. Sen, President of Oahu Plumbing & Sheet Metal, Ltd. The roof is the batten seam type with the roof pans being prefabricated in our shop. The installation was made in accordance with recommendations made by Revere in their booklet, 'Copper and Common Sense.

"Because of its exceptional flexibility in design we notice that more and more all-copper roofs are being specified by architects and designers who are seeking something different.

"This pleases us because we prefer to work with copper. It is easily soldered, and can be readily fabricated into any desired shape or form. You can do such a neat-looking job with copper."

Architects, designers, engineers: Dare to design with copper in mind. Be the leader others will follow. Send today for Revere's 110-page brochure, "Copper and Common Sense."

### REVERE COPPER AND BRASS INCORPORATED

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Mills: Rome, N.Y.; Baltimore, Md.; Chicago, Clinton and Joliet, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Brooklyn, N.Y.; Newport, Ark.; Ft. Calbonn, Neb. Sales offices in Principal Cities. Distributors Everywhere.



ENTRANCE TO THE fabulous McInerny Waikiki Store. Known as "The Jewel of the Pacific," it is one of the show places of the world, and is in Honolulu, Hawaii. Note how copper gutters blend into roof line: also unique treatment of down spouts (arrows).



MOST UNUSUAL ROOF EFFECT is obtained by running batten seams on the diagonal. Copper was furnished by Revere Copper and Brass Incorporated. Architect: VLADIMIR OSSIPOFF, F.A.I.A.



MR. HEATING & AIR CONDITIONING CONTRACTOR:

# Get aboard the American

### $NO.\,1$ : Deferred Payment Plan!

PRE-SEASON, don't tie up your working capital. We say keep your money! Your American-Standard Air Conditioning Division Distributor will ship you the furnaces and air conditioners you need for stock, pre-season installations and show-room display... and you don't pay a penny till June 1st!\* And no interest!

NOW MR. DEALER, when you take on a small working stock, this enables your Distributor to restock his inventory immediately. Thus he's in an even better position to supply your requirements when the rush season arrives. "Filling the pipeline to the Consumer" is an important part of the overall American-Standard business building plan to put their dealers in the best possible position in their fight to capture the Profitable Spring Modernization Market.

\*Subject, of course, to local credit restrictions.

### $NO.\,2$ : Springboard to Profit!

### Look what you get:

- 1. First quarter stock on deferred payment till June 1st . . . and no interest charge!
- 2. \$100 worth of lighted signs . . . truck painting . . . billboards . . . etc. . . FREE!
- 3. \$28.30 worth of technical manuals . . .
- sales aids . . . displays . . . FREE!

That's what your American-Standard Air Conditioning Division Distributor is ready to give you, when you sign up by taking a small working stock on deferred payment during the first quarter. Here's a deal that will give you a running head start into fabulous modernization markets of the 60's!

SEE YOUR DISTRIBUTOR TODAY!

# -Standard 1960 PROFIT EXPRESS!

DEFERRED PAYMENTS! SPECIAL PROMOTIONS! PRIZE VACATIONS-FOR-TWO! THOUSANDS OF GIFTS!

### NO. 3: Old-Fashioned Bucks!

"Old-Fashioned Bucks" are the biggest bargain in money today! They are Gift Certificates that let you buy at WHOLESALE PRICES from one of the country's largest mail-order houses (you can use either "Old-Fashioned Bucks" or just plain cash). So all your money is worth at least 30% more!

"Old-Fashioned Bucks" are symbolic of the good old-fashioned extra quality and value we build into all our American-Standard warm-air furnaces. You will receive "Old-Fashioned Bucks" with every order you place for American-Standard furnaces.

Send for your Big 600 Page Wholesale Bargain Catalog TODAY... buy American-Standard furnaces... and get your share of these good "old-fashioned bucks"!

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Win exciting all-expense-paid vacations for two! You pick where you want to go and when you want to go! Bermuda . . . Miami Beach and Nassau . . . Las Vegas . . . Mexico City and Acapulco . . . Miami Beach and Havana . . . . Hollywood and San Francisco . . . Jamaica . . . . Mackinac Island . . . Colorado Springs . . . Miami Beach!

It's so easy to win, it's undoubtedly the air conditioning industry's most exciting vacation sales contest for dealers. See your American-Standard Air Conditioning Division Distributor today. He'll give you all the details. We can tell you this: the sooner you enter the contest, the easier it is to win. So act fast! You'll like Tray-O-Rama!





AMERICAN-Standard

AIR CONDITIONING DIVISION

ELYRIA, OHIO

# New Training Opportunities Open to Sheet Metal Workers

Washington, D. C.—The Metal Trades and the Building and Construction Trades Departments, AFL-CIO, in cooperation with other interested groups, have compiled a report describing apprentice and journeyman training opportunities under the new Title III of the George-Barden Act, "Area Vocational Education Programs."

The report points out the Office of Education now recognizes that:

1) Area vocational education programs operated under the new Title III of the George-Barden Act are not limited to "technicians" to the exclusion of apprentices and journeymen. State and local vocational education authorities can and should set up area vocational education programs under this Title designed for employed persons, including apprentices and journeymen.

2) These extension, supplementary or related instruction courses should be designed for such workers to obtain additional training in the direct application of science, mathematics and advanced technical skills and information to meet new and changing technologies.

Materials of interest to those desiring to set up area vocational education programs include the following: National Defense Education Act of 1958, P.L. 85-864, Sept. 2, 1958 (15 cents): Administration of Vocational Education, Rules and Regulations, Vocational Education Bulletin No. 1, General Series No. 1, Revised 1958 (25 cents); and Area Vocational Education Programs—Regulations for the Administration of Title VIII. National Defense Education Act of 1958, OE-80001, Misc. No. 3560, Revised Sept. 1959 (15 cents). All of these publications may be obtained from the Superintendent of Documents, Washington 25, D. C. A fourth bulletin-Area Vocational Education Programs: Suggestions to States in Promoting, Organizing, Operating and Appraising Programs, OE-80002, Misc. 3561, Revised Sept. 1959—is available from the Division of Vocational Education, Office of Education, U. S. Dept. of Health, Education and Welfare, Washington 25, D. C.

According to a recent report from the U. S. Department of Labor, Bureau of Apprenticeship and Training, there were 11,149 sheet metal workers registered with state apprenticeship agencies or the Bureau of Apprenticeship and Training at the end of the period January 1-June 30, 1959. This was a drop of 152 from the number registered at the beginning of the period.

### Drop in Construction Of Dwelling Units Seen

(Continued from page 24)

supply of mortgage money will continue to characterize the industry's financing picture in 1960. They also attached considerable importance to the influence which this factor of tight money will have on 1960's housing starts.

Other aspects of the money market, such as the supply of builders' construction funds, buyer resistance to high interest rates and strictness of standards used by lenders to qualify buyers for mortgages also figured significantly in builders' calculations for the coming year.

In more specific comments relating to the money market, builders singled out high interest rates as a key factor in failure to qualify potential home buyers for mortgages.

Another aspect of the money market given considerable attention is the fact that builders have been less successful in obtaining advance commitments from lenders to cover the coming year's starts.

### Automatic Oil Heating Has 75th Birthday

(Continued from page 24)

field, according to Fred Heaney. OHI president. Mr. Heaney said that the theme adopted by OHI for the anniversary year is "75 years of carefree comfort—oil heat's diamond jubilee."

Historical material suitable for use in publicizing the 75th anniversary is now being gathered, and OHI requests that manufacturers, suppliers and dealer-contractors cooperate in the program by sending in old pictures, advertisements, catalogs or other documents relating to oil heating.

The 75th anniversary theme is being used for OHI's 38th annual convention and for the concurrent National Oil Heat and Air Conditioning Exposition which will be held April 4-7. 1960. Everett Elliott, president, C. L. Elliott Co., Danvers, Mass., has been appointed chairman for the forthcoming convention. Assisting him will be C. W. Lang. Sundstrand Hydraulic Div., Sundstrand Machine Tool Co.; Larry D. Sibley. Combustion Control Div., Electronics Corp. of America; M. J. Reed, Socony Mobil Oil Co.: Gabe M. Marin, Sun-Ray Mfg. Co.: Lavern Schaetzel, Schaetzel Oil Co.; Corbin B. White, C. B. White & Bros., Inc.; and Reginald Moffat, L. A. Johnson Fuel Oil Co.

### Calif. Apprentices Get New SM Course

San Francisco—The California Sheet Metal Workers Joint Apprenticeship Committee has completed its revision of Part I of the Course for Sheet Metal Apprentices. The revised first section, now being used for apprentice instruction by the California Department of Education's Bureau of Industrial Education, consists of a

(Continued on page 30)

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CATALOG 517

# CLARAGE

V-belt driven

"Packaged" fans . . . ready-torun units for supply and exhaust jobs ranging to 25,000 CFM. Adjustable in-the-field to 8 discharge directions. Available for both outdoor and indoor installations. Send for 36-page catalog containing complete information or contact nearest Clarage sales

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CLARAGE FAN CO., 619 Porter St., Kalamazoo, Mich.

Please send your Ready Unit Catalog 517.

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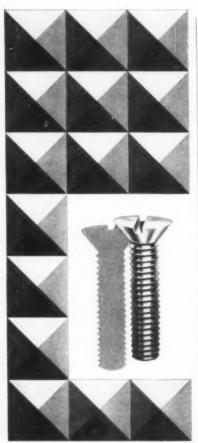
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Dependable equipment for making air your servant

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### IN FASTENERS SOUTHERN IS DIMENSION

Southern fasteners add dimension to your products and profits with:

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in range of sizes, styles and finishes. Time— Southern is time-dimensional, too. Your order is filled within a matter of minutes and shipped from a warehouse near you for speediest possible delivery.

Find out more about Southern's four-dimensional benefits. Write, on your com-pany letterhead, to Southern Screw Company, P.O. Box 1360, Statesville, North Carolina.

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Machine Screws & Nuts · Tapping Screws Wood Screws . Stove Bolts . Carriage Bolts . Dowel Screws . Hanger Bolts Drive Screws.



### WHAT'S HAPPENING . . .

### Revise California Sheet Metal Course

(Continued from page 28)

work book, textbook and final examination. Areas of study included are: 1) The Apprentice Sheet Metal Worker and His Trade; 2) Mathematics as Applied to the Trade; 3) Geometric Drawing: 4) Principles and Application of Pattern Development (including elementary, ventilation and parallel line layouts as well as radial line development and triangulation); 5) Principles, Maintenance and Use of Tools and Machines; and 6) Materials Used in the Trade

### Gas Industry Prepared To Meet Rising Demand

(Continued from page 24)

only about 21/4 sq ft of floor space. For this reason, they can be installed in an upstairs location as well as in the conventional basement setting. Another recent development is air conditioning by gas, which means that in the single or multiple dwelling of the future, gas equipment will figure in both heating and cooling. Other developments ready for the 1960's are automatic gas water heaters lined with glass or metals that defy corrosion; wall furnaces that are recessed in an outside wall for easy venting and ready combustion air supply: and a new type of gas conversion burner that makes it simple to convert existing equipment to gas."

Edward R. Martin, GAMA director of marketing and statistics, reports that many new sales peaks were attained during the year just passed. with sales of furnaces and automatic water heaters establishing all-time records. In 1960, Mr. Martin says, gas-fired furnace sales are expected to total 1.104,500 units, 0.5 percent ahead of last year. Manufacturers of

(Continued on page 32)

here's a new, fast-moving item from the makers of the famous

### ALLEN BOOSTER FAN

### . the Allen BASEMENT HEATER

Larger profits are automatic when you sell Allen One-Pipe Boosters and the new Allen Basement Heater. Both enable you to add to the efficiency of any warm air plant, and will open the door to future business.



featuring sealed bearings which require no oiling and positive

### 24 VOLT DUO-CONTROL

the Allen Basement Heater controls heat delivery from either the fan motor in the pipe, or from the room thermostat.

Arrow in illustration indicates the new fixed thermostat attached to fan motor. Thermostat prevents fan operation until there is 100° heat in the furnace. Contact is broken at 95° to prevent blowing cold air. When bonnet temperature reaches 100° booster fan will operate whenever room thermostat calls for heat.



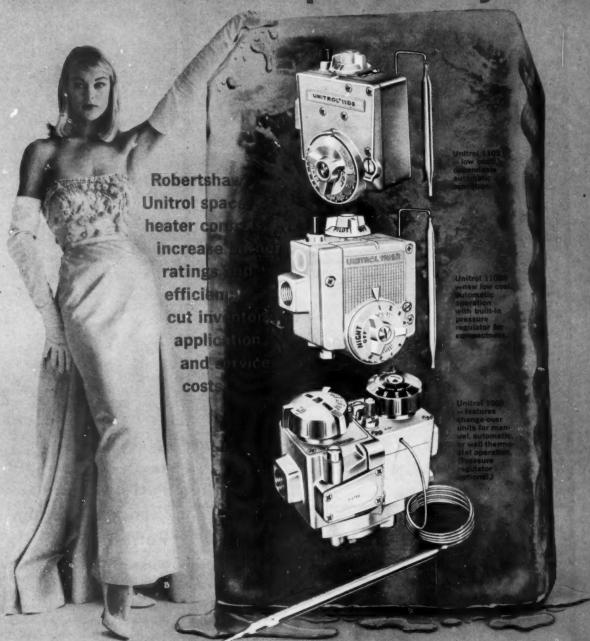
Above: Complete package of the new Allen 24 volt Duo-Control Booster Fan. Left, Fan with 5-year cilless motor; Center, Room thermostat;

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thaw extra profits out of

ROBERTSHAW dependability!



The surest way to thaw extra profit out of space heater appliances is to specify controls that operate dependably to safeguard your product reputation and cut service costs. The Robertshaw Unitrol 110S provides dependable, low cost return air sensing element operation. The new Unitrol 110SR combines the economy and dependability of the 110S with the increased burner efficiency provided by a built-in pressure regulator—plus compactness! The Unitrol 1000 provides inventory-saving change-over units for manual, automatic, and wall thermostat operation.

Robertshaw ...



ALL SWIFFER IN DISPENSER-TYPE CARTONS

Quick, Economical, Easy, and Practical Methods for

**FABRICATING FLEXIBLE DUCT CONNECTIONS** VANES FOR ELBOWS . AIR SCOOPS AND LOUVERS



### PRE-FAB-RIC

### A PREFABRICATED FLEXIBLE DUCT CONNECTION

a fabric (of your choice) in the center with a galvanized metal in each side. Double-Sale Locked together in a single continuous

A TYPE, SIZE, AND PRICE FOR ALL JOBS THREE GRADES THREE FABRICS Canvas - Asbestos Neoprene

nercial - Economy Residential

TOP QUALITY FABRICS (Without Metal) Some Weight and Width (5") Used in PRE-FAB-RIC. Put Up in 100' Rells



### INSTANT-VANE RAIL

#### ELIMINATES

Layout, Tab Cutting, Hole Punching, Spot Welding, Riveting, Etc., Results in a Savings Up to 70% over old methods.

Best method ever devised for installing turning vanes (single or double) in sq. elbows.

100 FT. COILS

ENGINEER APPROVED



### ELIMINATES

Layout, Tab Cutting, Hole Punching, Riveting, Spot Welding, Etc.

AN ECONOMICAL AND PRACTICAL METHOD FOR FAB-RICATING LOUVERS - REMOVABLE, HINGED, OR STA-TIONARY. LOUVERAIL is 24 ga. galvanized 41/2" wide in (2-50' lengths) I right and I left coiled together

Split (12) Rail for Louver Thicknesses From 114" to 134". Use Full Size Rail for Louver Thicknesses From 31/4" to 4'

### SCOOP-RAIL ELIMINATES -



- S. M. screws at top and

- Radius ell, transition, and splitter damper at branch duct take-offs.
- Volume damper on grille. Job delay in ordering.
- SCOOP-RAIL for fabricating air scoops for branch ducts and grille collars. Insuring uniform air distrivolume in branch duct or at grille face. Simplifies balancing of the



- standard quadrant
- Speed nut tabs for ½" square rod are riveted, spotwelded or s. m. screwed to ends of SCOOP-RAIL.
- Where desired clg. control may be used.

### CAIN MANUFACTURING, INC.

1111 North 5th Avenue

Phone FA 2-0354 Birmingham, Alabama

### WHAT'S HAPPENING ...

### Gas Industry Expects Increased Sales in '60

(Continued from page 30)

automatic gas water heaters expect 1960 sales to total 3,012,500 units, a slight drop from the 3,016,000 units sold last year. Anticipated 1960 sales for other gas-fired equipment include: gas vented recessed wall heaters, 452,600 (down 1.5 percent from last year); floor furnaces, 86,000 (down 13.4 percent); incinerators. 52,300 (up 8.4 percent); unit heaters, 141,100 (up 3.1 percent); and duct furnaces, 25,500 (up 5.8 percent).

### Purdue to Stress Selling, Good Design

(Continued from page 24)

heating, cooling, ventilating, air purification and humidity control; 2) to inspire them to sell these valuable features of air distribution; and 3) to train them to design systems for quality air conditioning and distribution. According to university officials, the course will aid anyone who would like to meet Silver Shield standards as the design problems used are similar to those in the Silver Shield training program.

### **ARI** Establishes 'Random Testing' Pattern

WASHINGTON, D. C. - The Air-Conditioning and Refrigeration Institute has established a "random testing" pattern under which at least four units will be tested every month to determine if their rated capacities are met. The units to be tested are to be withdrawn at random from the stocks of distributors, under provisions of the ARI unitary air conditioner certification program.



### NONE BETTER ANYWHERE!

CRESCENT and CRESTOLOY Wrenches are made by the originators of the 22½° adjustable wrench. They have been widely copied but never equalled for design, balance, quality and all-around performance. The buyer who wants top value in tools insists on CRESCENT.

Sold by hardware dealers and industrial distributors everywhere.

CRESCENT TOOLS

Give Wings to Work

Jign of the Stripen R

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Crescent is our trade-mark, registered in the United States and abroad, for wrenches and other tools. Sold by leading distributors and retailers everywhere and made only by CRESCENT TOOL COMPANY, JAMESTOWN, NEW YORK

# Aver

a complete line that offers quality plus value to give you the best buy in registers, grilles, diffusers

### WALL AND BASEBOARD REGISTERS, GRILLES, INTAKES



#### Aire-Flex Vertical . .

single-valve wall and baseboard registers with adjustable vertical fins, matching grilles and intokes.



### Aire-Flex Herizental . . .

single-voice wall and baseboard registers with adjustable horizontal fins, matching grilles and intakes.



#### Aire-Flex Mutti-Louver . . .

wall and baseboard registers with multilower valve and adjustable vertical fins.

### PERIMETER DIFFUSERS



### No. 100 Perfusaire . . .

the industry's **original** 18" baseboard perimeter diffuser for heating, cooling or combination heating-cooling installations.



### D.R.P. Floor Diffuser . . .

extremely rugged unit available in nine sizes.



### VL (Value Line) Floor Diffuser . . .

economy-priced floor diffuser available in five sizes.



### Baseboard Intake . . .

matches Perfusaire in height and appearance, available in three sizes.



### No. 50 Valuaire . . .

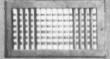
economy-priced 18" baseboard perimeter diffuser offers greatest value at lowest price.



#### Fanaire . . .

versatile unit available in four sizes for baseboard, wall or ceiling installation.

### REGISTERS



### Streamliner Series . . .

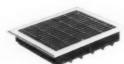
multiple deflection air conditioning reglaters and return faces available in 14 different designs.



### Cailing Outlets . . .

Series 60 (square) available in six sizes; Series 65 (round) available in seven sizes.

### GRAVITY REGISTERS



### DR DuraBilt Floor Registers . . .

sturdy, narrow-mesh construction promotes safety, lends neat appearance.



### DSC Cold Air Faces . . .

match DuraBilt floor registers in construction and appearance.



### Heat-Rite Baseboard

two-piece unit produced in five sizes, matching wall and baseboard intakes.

### **OTHER PRODUCTS**



### Ornamental Grilles

stamped metal grilles with wide choice of design, size and material.



### Clothes Chute Doors

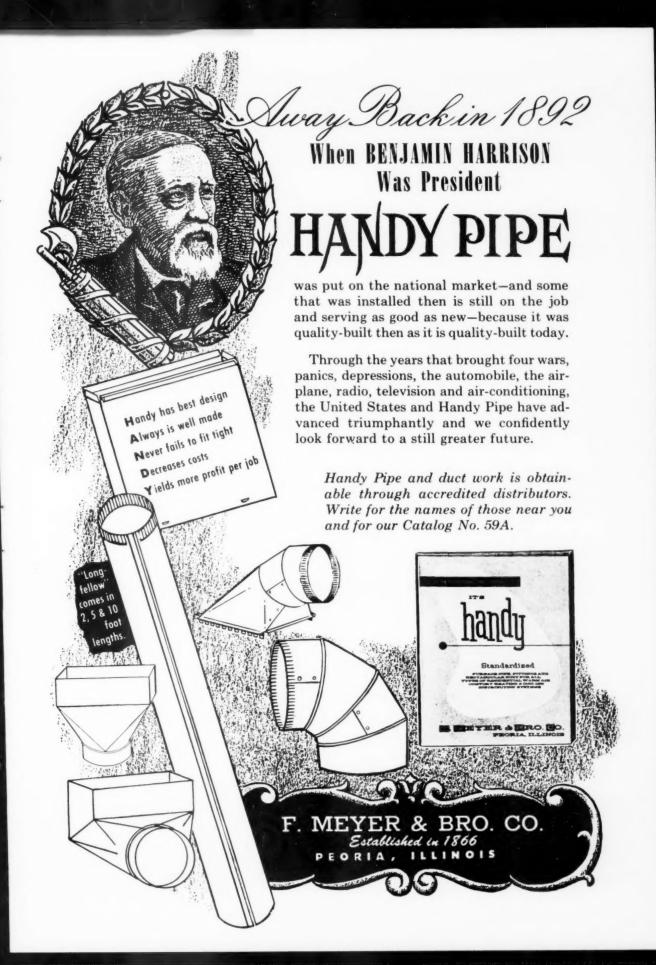
all-steel doors with either swing-out or push-in operation.

For full Information, send for the complete catalog of Auer Registers and Grilles.

### THE AUER REGISTER COMPANY

STOISTERS AND BRILLES FOR EVERY HEATING AND COOLING NETO-





ANOTHER IN THONEYWELL'S DIAMOND JUBILEE PARADE OF PRODUCTS

# Only Honeywell could improve the world's finest thermostat



SEPARATE COMFORT SCALE tells temperature at a glance, ends calls if pointers temporarily do not match.



NEW DIAMOND LUSTRE FINISH Silver-gray tone blends with any decor. Snap off ring to repaint.



NEW PICTURE WINDOW DIAL Easy on the eyes! Read it from afar without a squint—or error!



NEW EYE-SAVING NUMERALS Big numbers make it easy to see and set exact temperature wanted.



## Presenting the new Diamond Jubilee model of the world famous Honeywell Round Thermostat

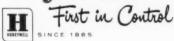
Now! The craftsmen who designed the world's most wanted thermostat have made it more attractive than ever to your customers. It's easier to read, easier to set—and Honeywell is pre-selling this new Round with big persuasive ads like this, starting in the April issue of Better Homes and Gardens, continuing throughout 1960. It all adds up to greater consumer demand—and to greater profits for you, when you tie-in with a promotion of your own.

You profit many ways by handling Honeywell's complete line of controls. You have easier installation, simplified inventories, and prompt nationwide service when you need it.

For more information about Honeywell's new Round or other Honeywell products call your nearest Honeywell office, or write:

Minneapolis-Honeywell, Department DE012, Minneapolis 8, Minnesota.





#### YOU'LL LEAD THE PARADE

## Luxaire



#### NEW GAS A. C. UNITS



New! Low and Compact Horizontal Furnaces. 4 Sizes: 80,000, 100,000, 120,000, 140,000 Btu



New! Increased Air Deliveries for Cooling — shown with Duct Coil



New! 175,000 or 200,000 Btu Input— A Single, Compact Package

The Complete Line
— Upflow: 75,000
to 200,000 Btu —
Counterflow: 75,000
to 150,000 Btu



COMPLETELY ASSEMBLED AND WIRED!

#### NEW OIL A.C. UNITS



New! Slender, Compact Horizontal Units. 4 Sizes: 89,600 to 224,000 Btu Output



New! Greater Air Capacities for Cooling with Duct Coil installed



With Vestibule and Hinged Door



With Burner Exposed

New! Assembled and Wired A.C. Units — 84,000 to 119,000 Btu Output

HEAVY CONSTRUCTION! QUIET OPERATION!

YOU'LL LEAD
WITH QUALITIES
THAT OUTCLASS
YOUR
COMPETITION!

Over the years, Luxaire has established leadership with volume sales of Heating and Air Conditioning Units that excell—with heavy construction, uncomplicated design and resulting trouble-free performance—always at a competitive price!

It is no secret that much credit for this success is due Luxaire's manufacturing efficiency, giving you Luxaire's excellence, always at a competitive price!

If you have been installing Luxaire you have shared in these advantages—with easier, speedier installations and fewer call-backs, with the ability to command the top dollar on custom-installed jobs, and with the power to compete profitably when bidding is extra-competitive!

If you have not been installing Luxaire, you can secure your share of profitable business, and more – by contacting your nearby Luxaire jobber. His ready service makes it unnecessary for you to carry a large stock. See your Luxaire jobber for 1960 prices, today!

FIRST WITH EXCELLENCE . . . AT CONSISTENTLY COMPETITIVE PRICES!



Year 'Round &



Gas Fired Unit Heaters 4 Sizes



Gas Conversion Burners



Gas or Oil Gravity Furnaces

Coal Gravity
Furnaces and
A.C. Units





THAT MEET EVERY DEMAND!

handling capacities. New 175,000 and 200,000 Btu input Gas Fired Winter Air Conditioners provide these high capacities in one, compact, assembled and wired package!

New Luxaire Oil Fired Furnaces combine the quiet-operating advantages of a round combustion chamber with a factory-installed refractory firebox. In the new Horizontal and Basement models, these furnaces have increased heating and air delivery capacities all along the line!

FIRST AND FOREMOST... EASIER TO SELL THAN TO COMPETE AGAINST!





## Makes Even Greater

REGISTERS - GRILLES and DIFFUSERS

The ELITE of ALL PERIMETER DIFFUSERS for 1960
Base Board and Floor Diffuser Styles

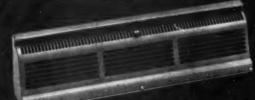
The New Improved No. 1000 SERIES U.S. BASE DIFFUSERS



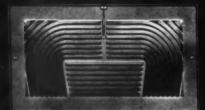
This NEW No. 1024 U.S. BASE DIFFUSER Now has an EXTRA ROW of OBLONG OPENINGS. Now you can use it with  $4^{\circ}-4^{\circ}2^{\circ}-5^{\circ}$  or  $6^{\circ}$  ROUND SUPPLY PIPES. The NEW No. 1048 will handle  $6^{\circ}$  and  $8^{\circ}$  Pipes.



The New No. 2024 and No. 2048 U.S. PERIMETER INTAKES Have GREATLY INCREASED AREA.

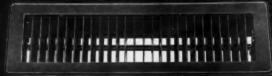


The No. 1018 (18" length) U.S. Base Diffuser is Designed for Perimeter Systems where Shorter Lengths are Required for Lower Cost.



No. 105 U.S. DIFFUSER SIDEWALL REGISTER

The "LITTLE GIANT" for PERIMETER SYSTEMS. DIFFUSES a FULL SUNBURST PATTERN—A COMPLETE 180° of EVEN AIR-FLOW at Every Degree of DIFFUSION. LEAST RESISTANCE — MOST POWERFUL of DIFFUSERS. No. 106 is the Out-of-Wall BASE STYLE—SAME DESIGN AS No. 105. No. 410 U.S. DIFFUSER FLOOR REGISTER



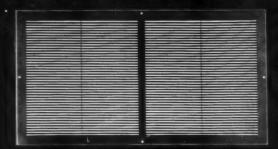
WIDER MARGINS to Cover CRACKAGE due to oversized Floor Openings. GRADUATED CURVED GRID-BARS to Permit Wide Perfect Even Air Diffusion. Sector-LEVER OPERATOR.



No. 413 STAMPAIRE Floor Diffuser with Stamped Face for Competitive Project Systems where QUALITY is also Required, which High Quality is still maintained in the No. 413 StampAire. Made in six sizes.



No. 313 STAMPAIRE Toe Plate for use in Kitchens, Bathrooms, Closets, and Stair Risers where space is limited.



No. 177 U.S. A-C GRILLE — 22° Bar Setting for ALL TYPES of Forced Air and Perimeter SYSTEMS. TIE-BAR ELIMINATES all AIR VELOCITY NOISE.

NOODR COMFORT



Write for

**UNITED STATES** 

BATTLE CREEK, MICHIGAN .

## Improved New Lines

#### THAT SURPASS ALL IN QUALITY-ECONOMY-SERVICE

New SINGLE-VALVE A-C REGISTERS with Tie-Bar



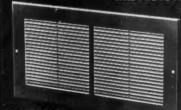
No. 153 AIR
CONDITIONING REGISTER—New Tie-Bar
stops vibration sounds. Safe to use on
higher velocity jobs. Note the new
"Scoop-Type" Single Valve.



No. 165 AIR
CONDITIONING BASE REGISTER — New
Tie-Bar Construction stops all Vibration
Sounds—Increases Register Strength.
Note Standard sizes with "ScoopType" Single Valves.



No. 175 A-C BASE
INTAKE — 78" extension With New TieBar Feature Eliminates High Velocity AirNoise Created by other makes. RESULTS
WILL PROVE IT.

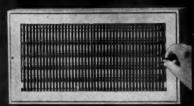


No. 177 A-C
VENT—Has the same
Tie-Bar Feature that Prevents those High
Velocity Air Noises, and also Provides
Increased Strength.

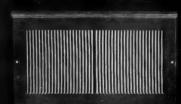
New MULTIPLE-VALVE A C REGISTERS: INTAKE-Vents to Match. 22 Right and Left Grille Bar Setting.



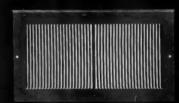
No. 256 A-C REGISTER Multi-VALVE Four-Way Deflection — LEVER OPERATED — BALANCING SET-LOCK. Side Wall Type.



No. 267 One-piece A-C BASE REGISTER
—FOUR WAY DEFLECTION—LEVER OPERATED—BALANCING SET-LOCK.



No. 176 A-C BASE INTAKE TO MATCH DESIGN of Nos. 256 and 267 A-C REG-ISTERS. 78 BASE EXTENSION.



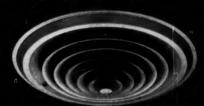
No. 178 A-C VENT to Match Design of Nos. 256 and 267 A-C REGISTERS. No. 190 U.S. MULTI-FLEX Series Opposed-Valve Registers – THE SILENT-WONDER LINE.



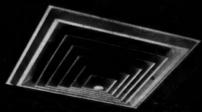
No. 190 MULTI-FLEX Register FOUR-WAY FLOW. Opposed Valves Screw-Driver Operated.



No. 192-L MULTI-FLEX Register PARAL-LEL-VALVE LEVER-OPERATED.



No. 1500 Round CEILING DIFFUSER showing Damper Knob Operator which controls the No. 1800 ButterFly Damper. Knob is Removable.



No. 2500 SQUARE CEILING DIFFUSER Stepped-Down Style May be supplied with No. 2800 Knob-Operated Square Butterfly Damper. Knob is Removable.

Your New Catalog

REGISTER COMPANY





**GLEAMING BEAUTY**, plus ease of fabrication is achieved with Republic ENDURO® Stainless Steel in a wide variety of applications, such as fountain and kitchen equipment. After fabricating operations, a light buffing brings out satin-like surfaces. Besides beauty, stainless steel assures maximum resistance to heat and corrosion, exceptional ease of cleaning, and a more sanitary appearance. Contact your steel service center for more information on Republic Stainless Steel, or mail the coupon.

SUPERIOR OUT-OF-DOORS PERFORMANCE is a characteristic of Republic Galvannealed Sheets. Experience proves its durability, even when only one side is painted. Hot dip galvanizing plus heat treatment gives the material excellent weather-resistance plus surfaces that will take and hold paint. Forming operations will not damage these characteristics. Contact your Republic representative or send for complete information.

Profit-producing ideas for sheet metal artisans...

## REPUBLIC STEEL SHEETS PROVIDE UNIFORM QUALITY FOR SUPERIOR FABRICATION



NON-VARYING QUALITY of Republic Continuous Galvanized Sheets provides the rigidity and corrosion-resistance required for quiet, trouble-free duct work. Tight galvanized coating stays tight . . . won't crack, flake, or peel under any operation permitted by the base metal itself. Mail coupon for data.



SMOOTH, SPANGLE-FREE SURFACES of Republic Electro Paintlok® Sheets assure flawless, long-lasting paint finishes. Chemically treated zinc coating withstands severe fabrication—limits corrosion to point of damage if applied finish is scratched through.

#### REPUBLIC STEEL



World's Widest Range of Standard Steels and Steel Products



REPUBLIC STEEL CORPORATION
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1441 REPUBLIC BUILDING • CLEVELAND 1, OHIO

Please send more information on:

☐ Stainless Steel

☐ Galvannealed

☐ Electro Paintlok

Name\_

Title

Company\_

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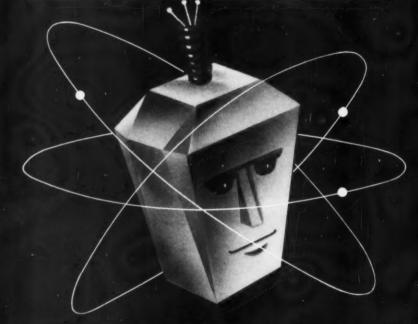
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## WILLIAMSON

Magic Brain'

**HEATING AND COOLING** 



....works "Magic" for your sales!

Seal-Tite\* DUCT, PIPE & FITTINGS



K. D. Rectangular Duct



Adjustable Elbow



Top Take-Off

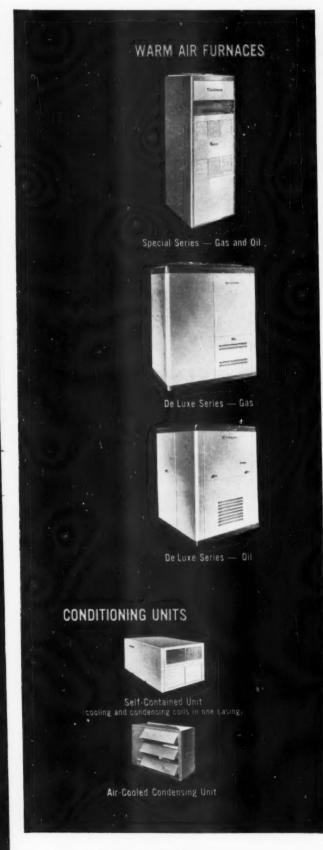


Snap-Lock Round Pipe

ΔΙΕ



Space Console Unit



#### THE INDUSTRY'S MOST COMPLETE LINE and THE INDUSTRY'S MOST UNIQUE SYMBOL

will help you make more heating and cooling sales



WARM AIR FURNACES...to fit any price range for the home owner or the builder.



**AIR CONDITIONING UNITS...** to fit practically any residential or light commercial need.



Seal-Tite DUCT, PIPE AND FITTINGS... to assure complete "magic comfort" with "Magic Brain" equipment!



NATIONALLY ADVERTISED to home owners and builders. Complete assortment of free literature, brochures, sales aids and tested selling plans.



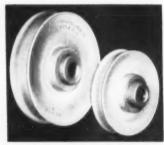
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\* T.M. Pat. Pend.

3310-R-1 Madison Road Gentlemen:	Cincinnati 9, Ohio
	n your "MAGIC BRAIN" line atCooling Equipment Pipe & Fittings
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	Title
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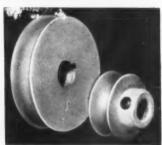


#### PERFORMANCE PROVED — millions in use



#### VARIABLE PITCH PULLEYS

Furnished with hollowhead set screws Aluminum finish. OD's 31/4", 31/2",



#### BAR STOCK **PULLEYS**

Made of steel bar stock. Plain finish and furnished with hollowhead screws.

Zatko Pulleys have built up the reputation of being the strongest and most economical on the market. Besides exhaustive factory testing, they have been proved time and again on thousands of installations requiring constant, trouble-free pulley operation.

Zatko Pulleys are broached and 100% inspected. Used by leading manufacturers of heating and air conditioning equipment.

#### ZATKO FRACTIONAL HORSE POWER BELTS

Famous "Silentride". Recognized for high performance, quiet performance, constant operation without servicing. Silentride Belts are perfect mates for Zatko pulleys.

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## More to Sell\*

Aprilaire
Automatic-electric
HUMIDIFIERS

- HIGH CAPACITY
- POSITIVE CONTROL
  (By Humidistat—Set It, Forget It)
- AUTOMATIC OPERATION
  (Furnishes Exact Humidity Needed —
  But Only When Needed)

## PLUS! BACTERIA REMOVAL

Now...you have even more to sell with Aprilaire Humidifiers!

The unique operational advantages of this newest principle of automatic humidification now includes an outstanding and revolutionary first—BACTERIA REMOVAL!

Up to 70% of all bacteria is removed from the air stream passing through the Aprilaire...and this new and vital health feature is a premium benefit to offer your customers.

And the Aprilaire's many other features—positive control, high capacity, constantly maintained proper relative humidity—all add up to better health, greater comfort and economy. For more to tell...and sell...it's the Aprilaire!

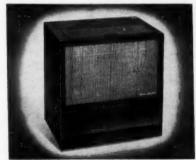
#### 3 NEW MODELS!



PLENUM MODEL — for forced air furnaces. Easily mounted on warm air bonnet. Uses plenum heat for evaporation — furnace fan and ducts for distribution of humidified air. Two models available — Model 110 with capacity of 5.3 lbs. of water per hour; Model 112 (New) with capacity of 9.2 lbs. water per hour.



UNIVERSAL MODEL — installed on or between joists in basement or crawl space. Flexibility of installation permits baseboard or wall registers. Heat source — steam or hot water. Capacity up to 9 lbs. water per hour.



PORTABLE MODEL — No installation necessary. Ideal for offices, apartments — wherever a permanent installation is not desired. Capacity up to 4.3 lbs. water per hour. Humidistat is optional equipment.

SEND IN COUPON FOR COMPLETE INFORMATION



RESEARCH PRODUCTS Corporation

RESEARCH PRODUCTS CORPORATION
Dept. 91, Madison 10, Wisconsin

I'm interested in the Aprilaire. Send me more information including literature, prices, specifications and the profit-making proposition.

ADDRESS\_\_\_\_\_\_\_STATE\_\_\_\_\_\_

## **NEW! NEW! NEW!**

#### **Air Conditioning**

#### **Gas Furnaces**

#### **Oil Furnaces**



Air Cooled 2 or 4 H.P. Condensing Unit . . . Top Exhaust with Lew Velocity . . . For Outdeer Installation



Air Cooled 3 or 5 H.P. Condensing Unit . . . Top Exhaust with Contribugal Blower . . . U. L. Approved for Outdoor Installation

Circular Plenum-Type Evaporator



Duct-Type Evaperator Coil

Eveporator Car



Blower-Evaporator Air Handling

2, 3, 4, 5 H.P. COMPLETE LINE





80,000, 100,000, 120,000, 140,000 Btu Low and Slender Horizontal



Large Capacity Blower for addition of Dect-Type Evaporator, as pictured



175,000 or 200,000 Btu Winter Air Conditioner in One Completely Assembled and Wired Unit



Ready Accessibility of all Parts with Front Panels removed, as pictured

75,000-260,000 B.T.U. COMPLETE LINE







Assembled and Wired Winter Air Conditioner . . . 84,000 - 112,000 Btu with Burner exposed



89,600, 106,400, 123,200 and 224,000 Btu Low - Slim Design Horizontal Furnace



Large-Capacity Blower for addition of Duct Type Evaporator, as pictured

78,400-224,000 B.T.U. COMPLETE LINE



#### THE MOST COMPLETE . . . AND COMPETITIVE . . . LINE IN 65 YEARS











### **ALWAYS AHEAD OF THE MARKET!**

#### Moncrief Celebrates 65 Years of Premium Manufacturing

Since 1895. Moncrief has made substantial contributions to the success of thousands of dealers and jobbers with premium Furnaces and Air Conditioners. Moreover, throughout the past decade, the happy wedding of ever-increasing sales and advanced manufacturing methods has made it possible for Moncrief to supply these premium units at prices which are competitive with less desirable units.

Now, beginning a new decade, Moncrief brings you outstanding new units . . . designed, constructed and priced to increase your sales and to place your business on the premium side of the profit picture.

#### **New Summer Air Conditioning Units**

To meet the increased demand for summer cooling in 1960. Moncrief has developed new Air Cooled Condensing Units, built and approved for unsheltered outdoor installation. These new units have a top-mounted condenser coil through which air is exhausted at low velocity, while providing peak performance so quietly that noise nuisance is minimized.

Combined with the new Moncrief Condensing Units. Moncrief Evaporator Coils make any type of application easier and more versatile, with circular Plenum-Type Evaporators, Duct-Type Evaporators, Counterflow Evaporators and Blower-Evaporator Air Handling Units.

New Gas Winter Air Conditioning Units Four sizes . . . 80,000, 100,000, 120,000 and 140,000 Btu input . . . comprise a complete new line of Moncrief Gas Fired Horizontal Furnaces for 1960. Designed with the addition of cooling in mind, these new furnaces have as standard equipment the size of blower needed for a majority of cooling adaptations. In addition to compact, low design these new units also afford exceptional installation flexibility.

For your large capacity installations in 1960. Moncrief offers 175,000 and 200,000 Btu input Gas Furnaces which are completely assembled and wired at the factory. In a single casing, these units afford big capacities for compact, money-saving installations.

#### New Oil Winter Air Conditioning Units

Because they have a round combustion chamber lined with a refractory firebox, Moncrief Oil Furnaces are remarkably free of expansion and contraction noise. For 1960, Moncrief offers 4 sizes of assembled and wired Oil Units . . . 78,400, 84,000, 112,000 and 119,000 Btu output . . . which are virtually as easy to install as a gas unit. And 3 new Moncrief Oil Fired Horizontal furnaces have increased air handling capacities, plus increased heating capacities in two sizes.

If you want to get ahead of the market and stay ahead of the market, product-wise and price-wise, call your Moncrief Wholesaler now. He makes it unnecessary for you to carry a large stock in order to enjoy a favorable price.

## ONCRIE

THE HENRY FURNACE COMPANY · MEDINA, OHIO

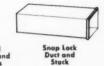
Healing and Air Conditioning Units . Furnace Pipe and Fillings





















Pipe, Duct, Stack . . . Elbows, Angles and Fittings . . . Make Every Installation Easier, Speedier, Better . . . Less Costly

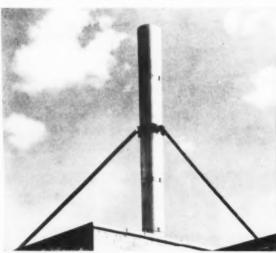
#### NOW, from Van-Packer...



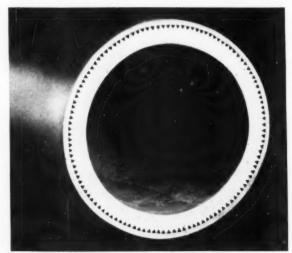
All-Fuel Chimney — A low cost, safe, attractive, residential chimney. Asbestos-cement housing in choice of four non-fade brick colors: red. white. buff and gray. Tile-lined sections are prefabricated; installation is fast, easy and economical. Each section has 5%-inch fire clay tile liner, 3-inch vermiculite-concrete insulating wall, and asbestos-cement outer jacket. UL listed for all fuels, safe even for incinerators.



Metal Gas Vent - Double-wall, air-insulated gas vents are available in round or oval types. Special design makes installing easy - sections lock together simply, yet tightly, forming a strong, leak proof system. Inner wall of aluminum heats fast for greater efficiency: galvanized steel outer wall provides unusual strength. Full range of sizes and fittings. UL listed for standard (Type B) and recessed wall heaters (Type BW).



Smokestacks — Van-Packer Smokestacks for boilers and incinerators feature factory-built refractory sections with corrosion-resistant metal jackets that need no painting. They outlast steel stacks by three times (average), yet cost no more. Model HT Smokestacks are listed under the Factory Inspection and Label Service Program of Underwriters' Laboratories, Inc. Available in 10", 12", 15", 18", 21", 24", 30" and 36" ID's.



Masonry Gas Vent - This Van-Packer gas vent is made of 5/8-inch fire clay tile with an asbestoscement jacket for safety and permanence. It is acidproof and fireproof, and won't dent, rattle, corrode or flake off. It is UL listed for Class B service and can be used with all gas-fired appliances (except incinerators) requiring a 3-inch to 7-inch ID flue. Comes with asbestos-cement brick-design panel housing in choice of four brick colors.

Division of: FUNIXOTE Manufacturers of Diversified Products for Home and Industry

VAN-PACKER CO., 30 Rockefeller Plaza, New York 20, N.Y. • Phone: PLaza 7-5500



Smokestacks Underwriters Taboratories Inc **®** 

In West: Pioneer Division, The Flintkote Company, Box 2218, Terminal Annex, Las Angeles, Calif. • In Toronto, Ontario: The Flintkote Company of Canada, Ltd.



#### for QUALITY PLUS ECONOMY "there's nothing like G-B DUCT!"

Cost-conscious contractors switch to "prefab" glass fiber duct; comfort-conscious customers are impressed

or maximum performance plus low installed cost, nothing does it like G-B DUCT—the round, prefabricated glass fiber duct for heating and air conditioning. Ideally suited for both residential and commercial use, this unique new duct is fast replacing conventional metal duct on many jobs across the nation. And for good reasons, too, for only G-B DUCT offers all the advantages of a lined metal duct plus the important money saving extras of a prefabricated duct.

#### HIGH IN QUALITY & PERFORMANCE

Because G-B DUCT is made 100% of glass fiber insulation, maximum thermal protection and sound absorption are "built-in" features. Every foot of this unique new duct is a self-contained sound trap. G-B DUCT carries an Underwriters' Laboratories label, and therefore meets all FHA requirements. As permanent as glass itself, this new duct will never rust, corrode, or deteriorate.

#### ECONOMICAL, FOOLPROOF INSTALLATION

Although somewhat higher in initial cost, G-B DUCT can be applied so simply and quickly that completed costs soon come in line with—and

usually undercut—those for conventional metal ducts. The key lies in no preassembly work. There's no scoring, no folding. G-B DUCT comes in 6' ready-to-use sections, in standard sizes up to 18" in diameter. Sections fit snugly and swiftly together with standard metal sleeves and vapor barrier tape. Elbows and T fittings are also easily fabricated with a knife and factory-supplied templates.

#### ATTRACTIVE VAPOR BARRIER FINISH

G-B DUCT's uniformly thick walls are covered with an air-tight plastic vapor barrier sleeve, providing a smooth, attractive finish as well as positive protection against sweating and moisture build-up. With vapor barrier tape sealing all seams, a completed G-B DUCT system is neat and clean in appearance.

#### WINS ENTHUSIASTIC APPROVAL

Every day more and more air conditioning and heating contractors are discovering the "quality plus economy" features of G-B DUCT. "Cut our installation time almost in half", reports the A/C Contractor of a 500-unit Florida housing project. "Pleased to report G-B DUCT is performing satisfactorily", says the contractor on an 800-unit housing project. "Comparative cost studies show G-B DUCT doubles our manpower output", adds another on a 300-home development.

Discover for yourself the many advantages of G-B DUCT. Write today for complete information, including simple installation instructions.

## CUSTIN-BARON My Co GB. 204 W. 10th St., Kansas City, Mo.

See the G-B booth #600 at the Dallas Show.



Versatility of G-B Duct is illustrated by its recent use in an 800-unit new housing project (above) and in the remodeling of a 50-year-old home (below). It is also being used in commercial and institutional installations, large and small.



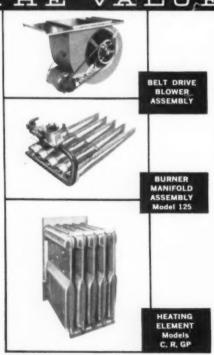
# The Key to Greater Profits... FRASER-JOHNSTON 1960 VALUE LINE AIR CONDITIONING GAS FURNACES, EVAPORATORS, CONDENSING UNITS AND HEAT PUMPS

Selling your prospects the advantages of Fraser-Johnston furnaces, evaporators, condensing units and heat pumps is easier, because you have specific, exclusive user benefits to present.

Long life, carefree operation, quietness, uniform temperature—to a degree once thought unattainable—are just a few.

These benefits—not matched by other equipment—result from Fraser-Johnston's advanced design, superb engineering and complete quality control in manufacture. Compare—detail for detail—and you'll agree that Fraser-Johnston equipment is "the value line of the air conditioning industry."

#### THE VALUE LINE OF THE



Start with the basic elements—the blower, the burners and the heat exchanger—the heart of a furnace. Then evaluate the casing, evaporators and condensing units...every sales point. You'll see we've made OUALITY mean something!

- 1. Large, 131/s" diameter blowers in all models, rubber mounted, give more air handling capacity at low tip speed—the secret of quiet operation.

  All Fraser-Johnston belt driven furnaces carry 0.6 in. AGA high static approval.
- 2. Patented, silent, lint-free, multi-slotted burners.
- **3.** Updraft heat exchanger, streamlined with no internal baffles, no hot spots, no pockets for condensation. Die-formed, completely welded construction.
- **4.** Fiberglass and foil lined casing for cool, quiet efficiency. Completely assembled and wired at factory. All service from the front. Slideout blowers.
- **5.** Adjustable fan and limit controls for better performance under various conditions.
- **6.** Inexpensive, removable filters catch dirt, pollen and germs.
- 7. Safe AGA approved.

#### FRASER-JOHNSTON UPFLOW, DOWNFLOW AND HORIZONTAL FURNACES WITH ADDED EVAPORATORS & CONDENSING UNITS





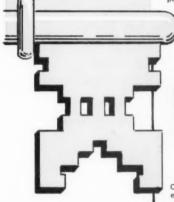
MODEL C (belt drive) and evaporator for limited space installation – ten sizes from 80,000 to 250,000 BTU/Hr. Input. MODEL CD (direct drive) – eight sizes from 65,000 to 125,000 BTU/Hr. Input.



MODEL R (belt drive) furnace and evaporator for counterflow or perimeter systems ten sizes from 80,000 to 250,-000 BTU/Hr. Input. MODEL RD (direct drive)—eight sizes from 65,000 to 125,000 BTU/ Hr. Input.



MODEL HN (belt drive) furnace and evaporator for horizontal application — six horizontal sizes available from 70,000 to 150,000 BTU/Hr. Input. MODEL HND (direct drive) — four sizes from 70,000 to 100,000 BTU/Hr. Incut.





C SERIES
Companion to furnace Models C - sizes 80 to 250.



R SERIES
Companion to furnace Model
R – sizes 80 to 250.



H SERIES
Companion to furnace Model
HN - sizes 80 to 150.

A.R.I. rated when used with the proper Fraser-Johnston condensing unit.

#### AIR CONDITIONING INDUSTRY



The **MODEL F SERIES**, in 2, 3,  $3\frac{1}{2}$ , 4, 5,  $7\frac{1}{2}$ , 10 and 15 h.p., uses the popular vertical discharge propeller type fan for cooling the condenser.



MODEL A SERIES, with metal weatherproof enclosure (as shown), in 1, 2, 3, 4, 5 h.p., uses an extra large, extremely quiet centrifugal fan.



The MODEL W SERIES, in 2, 3, 4 and 5 h.p., shown unenclosed, uses water cooling for condenser and is not affected by extreme air temperature conditions.



FRASER & JOHNSTON offers both air-cooled and water-cooled Condensing Units, U.L. approved. Air-cooled units are available with propeller type fan and with centrifugal type fan. These modern Condensing Units will operate under extreme temperature conditions, when properly applied and installed





HEAT PUMPS (reverse cycle) AND AIR HANDLING UNITS Both Self Contained and Remote.

Designed for high ambient temperatures.

Use F Series vertical type propeller fan and horizontal discharge from a centrifugal blower to the conditioned area. Sizes 3, 4, 5, 7½, 10, 15 nominal tons. (Photo) 1. Heat pump. 2. Air handling unit.



MODEL HB

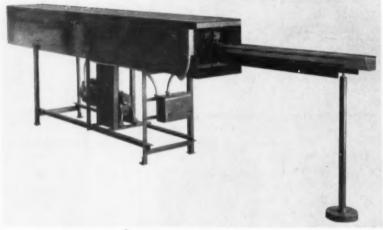
See our display of new models at the 2nd Southwest Heating and Air Conditioning Exhibit. Dallas, Texas. Feb. 1-4 • Space No. 194. Troser-Johnston

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## now offers you BIGGER and FASTER



#### ♠ Continuous gutter Machines...SPEEDS TO 150 FEET PER MIN!

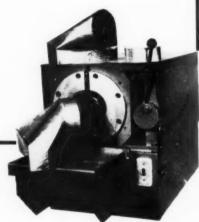
- · <sup>3</sup>/<sub>4</sub> H.P. Model 35 feet per minute
- · 3 H.P. Model 100 feet per minute
- · 5 H.P. Model 150 feet per minute

3 H.P. Model Capacity-100 feet per minute

## ATTACH 200 TO 300 COLLARS IN ONE HOUR! with this Welty-Way Collar Attaching Machine unique features . . .

- No preliminary crimping or beading is required.
- Expands, grooves and attaches collars to boots and fittings all in one operation.
- Production output is increased 300-400 per cent.

Either of these machines will enable you to modernize your shop and help you make your service more complete. Take 'em with you mounted on a ½ ton pickup or two-wheel trailer and eliminate all those unnessary trips back to the shop!



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AND LITERATURE —
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#### **Build More Heating and Cooling** Profits With E-Z-ON Damper Regulators

Use E-Z-ONS to cut installation time. eliminate extra work and make it possible for you to handle a greater volume of business . . . with increased profits.

E-Z-ON HALF SET (Not Illustrated)

%" bearing, 100 per box. Consists of: No. 27 standard threaded head piece and wing nut. Identical to No. 27 full set less solid tail piece.



E-Z-ON damper regulators cost you lessper-unit . . . to do a better job . . . quicker. An important reason why they're used on more and more jobs. Speedy E-Z-ONS permit on the job assembly, require only a hammer for quick installation . . . can cut your damper make up time by 60%.

NO RIVETS! NO DRILLING! NO SCREWS! NO EXTRA OPERATIONS!

Simply position 16 gauge E-Z-ON regulator on damper by sliding over scribed line. Specially designed Automatic Slot Opener permits instant assembly of regulator to damper. Sharp prongs can pierce 22 gauge

#### E-Z-ON FEATURES:

- · Double Prongs Mean Double-Grip, No chance of swiveling,
- Washer is Permanently Attached No loose washer to drop or fall in pipe.
- · Modern "Swept" Wing Nut is Eye-appealing. Adds new beauty to installations.
- · Balanced Construction. Prevents possible binding of damper in duct.
- · Lawer Price . . . Means lower cost to you.

In high velocity systems E-Z-ON Regulators can be used on dampers as small as 3¼" dia. or the HALF-SET can be used if desired. E-Z-ON Regulators work equally well on round or rectangular volume and splitter type dampers.

E-Z-ONS IDEAL FOR AIR CONDITIONING

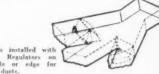
With the indicating handle, E-Z-ONS permit simple damper changing from winter to summer settings.

#### FAMOUS E-Z-ON STANDARD DESIGN

%" bearing, dozen to a box. Consists of: solid end tail piece, threaded head piece and wing nut. Made of 16 gauge steel and heavily plated, E-Z-ON prongs are strong nough to pierce 22 gauge metal.

#### SUPERIOR E-Z-ON "SNAP-TITE" DESIGN No. 29

%" hearing, dozen to a box. Consists of: tail piece with retractable snap end bearing, threaded head piece and wing nut. This eliminates need to bend damper or spring duet to insert damper. Made of 16 gauge steel, heavily zinc plated.



Dampers installed E-Z-ON Regulators one side or edge branch ducts.









#### STANDARD AND SNAP-TITE SETTING ANVIL



Saves time as. sembling regulators, operating on the principle of a rivet set. Can also be used in kick or power

press. Completely sets and fastens a unit in one operation. Of hardened steel. Weight 1¾ lbs., size 1" thick, 2" wide, 3" long—complete with fastening screws.

#### INDICATOR HANDLE

No. 26 GERETT - MILWAUKE DAMPER POSITION

Ideal for systems that use same ducts for heating and cooling because it clearly shows damper position . . . can be turned to summer or winter setting. Made of 19 gauge steel, heavily zinc plated. Small slot in end allows use as a tool to engage tongue of regulator in place of pliers.



E-Z-ON No. 29

Illustration actual size

Patent No. 2 342 877

STANDARD E-Z-ON No. 27 Illustration actual size Patent No. 2,285,829

USE FINGERS or WRENCH Fine S.A.E. type thread together with the large clamping surface on the wing nut accurate positive damper locking.

E-Z-ONS . . . built for speed and profits

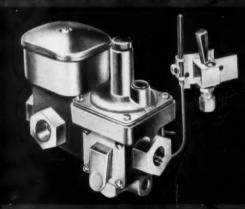
M. A. GERETT CORP. 724 WINNEBAGO STREET, MILWAUKEE 5, WIS.



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HEATING
CONTROLS...

## McQUAY-

COMPLETE
MANIFOLD ASSEMBLY



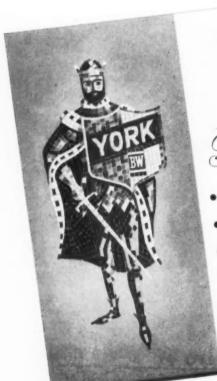
Includes pressure regulator, safety pilot; main valve, and 100% shut-off and safe light. In all popular sizes for natural, manufactured, and LP gases.

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- That the performance of every York Air Conditioner equals or surpasses that of any comparable competitive product, regardless of price.
- That York B.T.U. capacities are certified capacities. You get what you pay for a full B.T.U. for every B.T.U. promised.
- That every York Dealer meets the rigid Blue Chip Quality sales and service standards prescribed by the York Corporation.



#### **NEW BLUE CHIP** INCENTIVE BONUS FOR DEALERS!

All York Dealers are eligible for a full week's vacation at fabulous San Juan, Puerto Ricol Every recreational facility; lavish entertainment; air travel both ways...all expenses paid! Some may even qualify for a dream vacation to hallowed, old-world Rome!



ers. 2 compressor system comes in sizes to fit every home. Remote or packaged installations.

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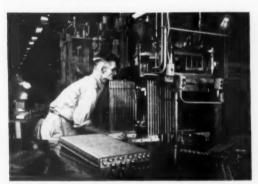
#### Your Guarantee of the Most Rewarding Advantages in Air Conditioning History!

Longest Trouble-Free Performance! Because each unit is inspected and certified by air conditioning experts using the most advanced testing facilities!

Most Value per Dollar! York's creative engineering, ultra-modern styling, and skilled craftsmanship make the big difference!

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Finest Inventory Supply Program! York factory personnel and distributors work with you to establish a realistic inventory program!



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Includes assembly lines with power-driven conveyors that never stop; new multi-spindle milling machines; automatic refrigerant-chargers; automated punch presses, electrostatic painting devices and much more!



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York uses the most modern testing instruments available to check and recheck BTU capacities, sound levels, air flow CFM, wiring, voltages, everything! The object: to make York units that perform better, last longer, cost less!

York puts more into every unit, so you get more out of it

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Air Conditioning, Heating, Refrigeration and Ice-Making Equipment.

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Packaged Products Div.

York Corporation West Grantley Road, York, Pennsylvania

Gentlemen:

I'm interested! Send me full details on York's Pledge of Performance and profit planning.

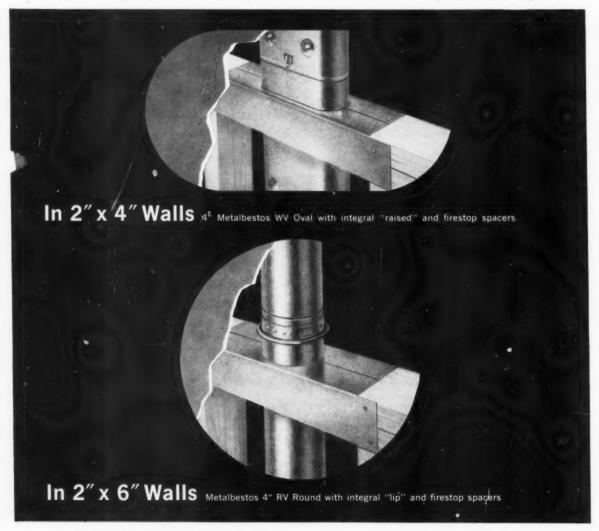
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Metalbestos offers two complete systems for inwall gas venting—without the necessity or expense of furring! Provides everything needed, from draft hood to "bird-proof" Belmont top . . .



#### A COMPLETE SERVICE

For complete product line description and installation details (Bulletin 102), contact your Metalbestos sup-

plier. Ask him, too, for the Metalbestos Gas Vent Tables, the easy-to-use design guide for correct gas vent installation — available free of charge.





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DIVISION

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MANUFACTURING PLANTS IN BELMONT, CALIF., LOGAN, OHIO



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Here's the fast way to slash sheetmetal cutting costs on the job and in the shop: The new Model 200 MILWAUKEE Shear cuts any shape, faster, easier, and with far more accuracy than was ever before possible.

With new blade design you can cut a tight radius either right or left... smoothly... easily... without jamming. You'll like the smooth, powerful and precise way the shear blade slices through sheet metal... even Monel and stainless steel up to 17

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gauge - without fouling or forcing.

See this completely new shear at your nearest MILWAUKEE Distributor, or write for bulletin SH-1.

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Draft problems end with Walker Shur-Flo (Pats. Pend.), SUREST DRAFT SYSTEM EVER DE-VISED for oil, coal or gas-fired installations from older homes to modern, low-roofed houses. Install it, forget it! What could be better?

Fan-operated draft-inducer draws only flue gases - not outside air. Quiet. Costs less to operate. Needs little power. Installs quickly at any angle. Virtually eliminates costly call-backs, corrections.

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Now, the first ready-reference guide collecting all the information on Power Inducer Venting you'll need to solve your draft problems. You'll find it indispensable. Get your handy copy now! Absolutely no obligation.

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#### Scientifically Designed Walker Draft Controls for Every Draft Purpose Are Standards of the Industry. 30,000,000 in Use Prove Efficiency.



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# Time To Change! To MOR-SUN GAS AND OIL FIRED UNITS IN Breakaway Design

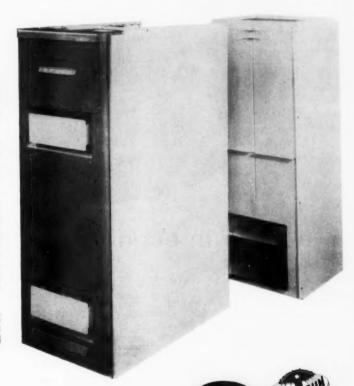
FOR EASY, ECONOMICAL INSTALLATION

Quality — Economy — Dependability. Old words, yes, but still right up on top of the list of dominant buying motives. Also, right up on top of the list of factors that enter into the manufacture of the new line of MOR-SUN gas and oil fired furnaces featuring the revolutionary "Breakaway Design".

The new MOR-SUN furnace was especially designed and engineered for the economy and efficiency of operation which means satisfied customers. Here is a new product which upholds the MOR-SUN tradition of building better equipment with solid field acceptance.

The new model furnace is designed in two separate units. Front section contains the burner, controls, and heat exchanger. Rear section only the blower. Dividing of the unit accomplishes two important installation features. Each section is small enough to fit through any standard doorway. Separate blower section provides flexibility to add a larger capacity blower unit if, and when, the home owner decides to add an air conditioning cabinet.

Now is the right time to end the necessity of having to choose between quality or economy. They are both yours in the complete line of MOR-SUN gas and oil fired forced warm air furnaces.



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Apple of the eye that's looking for low-cost classroom comfort! Room by room, gas-fired Norman Schoolroom Heating and Ventilating Systems automatically: (1) provide heat rapidly when it is needed, (2) blend the proper amounts of outdoor air and recirculated room air to cool and ventilate the classroom, and (3) distribute tempered air evenly along and out from the exposed wall. Each Norman forced warm-air system is an easily installed package with pre-wired, factory-assembled heating and ventilating unit, controls and partially assembled Util-i-Duct® Bookshelf sections.

Write Today for New 1960 Comprehensive Manual.



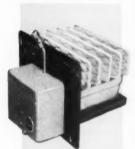


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## offers you the most complete line of Humidifiers and Filters!

#### MODEL 711 Counter-Balanced Humidifier



This highly efficient, low-priced unit requires one installation, one adjustment. It is shipped completely assembled with 5 Vapoglas plates and stainless steel plate rack. The Model 711 is compact, easily installed, trouble-free, and is self compensating for all water pressures. This compact unit can be a sales leader for you in 1960.

#### MODEL 2001 Defensor

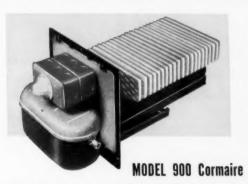
This Skuttle Defensor Electric Humidifier operates on an atomizing aerosol principle. This produces a suspension of fine liquid particles in air, as fog or mist. The cold mechanical injection into an air stream is by far the most expedient technically and economically. With an output of over 1 gallon of water per hour, it is simply connected to the plenum or air duct.



#### MODEL 600-B Humidifier



The Model 600-B can be used with sloping bonnets or straight plenums in gravity or forced oir furnaces. The nan and leak-proof blown glass float are standard with 5 No. 490 Vapoglas Plates. This model assures constant, effective humidity. Output can be increased by adding up to 20 Vapoglas Plates.



THE NEW PACKAGE HUMIDIFICATION SYSTEM. This high quality, flexible unit is designed to provide controlled humidification during the entire heating season. It uses 20 Yapoglas plates in a corrosion resistant evaporating pan. Used as a Yapoglas plate humidifier, the Model 900 usually provides adequate humidity in the spring and fall. As a controlled humidifier, the output can be increased by setting the cycling



switch that controls the electric heating element. This switch is standard equipment on the Cormaire. As a completely automatic humidifier, the Cormaire is placed in the plenum, and a relay transformer and humidistat are added as optional equipment. As an added feature, a Hygrometer is furnished with every Model 900 Cormaire.

#### NEW LOW-COST Dust-ban FILTER

The electrostatic action of Skuttle DusT-ban Filters guarantees the removal of dust, dirt and pollen particles, yet allows the free flow of air for maximum heating or cooling efficiency. They are completely washable and never need oiling.





FREE Filter Gage (value \$1.95) is your tie-in for increased sales. Your customers will receive a free Skuttle filter gage with the purchase of 2 Skuttle DusT-ban filters or \$1.00 with the purchase of 1 filter.

SKUTTLE-AIRE PERMANENT FILTERS. Designed for heavy duty commercial and industrial applications, as well as domestic heating and cooling systems, these sturdily built filters are easily washed with cold water and never need oiling.



Write today for complete information on the Skuttle line.





IN CANADA: WAIT SKUTTLE CO., OAKVILLE, ONT.



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Barber-Colman offers you years of combined experience in both air distribution products and automatic controls to help you develop the correct relationship between room temperature, velocity of air being introduced to the room, and temperature of the moving air in relationship to average air temperature in the room. You are assured correct, complaint-free human comfort conditions because Barber-Colman guarantees the performance of its products.

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Sidewall Diffusers



MODEL MA (has removable core)



MODEL FA (has removable core)

Hallellellellellelle

Model ST, STW, and STWA continuous diffusers for under-the-window, sidewall, and floor use.

Uni-Flo diffusers provide rapid mixing, a high rate of aspiration with resultant high entrainment ratio, low pressure drop, low noise level, simple adjustment in the air pattern, and a pleasing appearance. A variety of frame styles is available to meet sidewall, panel, or exposed duct installation requirements. The removable core feature makes it unnecessary to break the paint or plaster seal for cleaning or decorating purposes.

Barber-Colman also manufactures a complete line of return, exhaust, and transfer grilles, including the Sight-Tite core for use in doors to provide adequate ventilation without "seethrough."

#### Accessories

Barber-Colman accessories include opposed-blade volume controls—Voladjusters for remote manual adjustment of air volume—Airturns and Deflectrols, for efficient flow of air around turns and into take-offs.

Ceiling Diffusers



Venturi-Flo ceiling diffusers feature quiet operation, rigid construction, wide range of sizes, efficient diffusion, adjustable deflection volume control, and attractive appearance. They are available for supply and return service in both recessed and flush mounting styles. A complete line of accessories includes volume controls, dampers, and Deflectrols.



Uni-Flo square and rectangular ceiling diffusers with the original perforated diffuser plate.

Square and rectangular ceiling diffusers with attractively designed faceplates are available in both recessed and surface models. Air pattern modification and volume control are provided without altering appearance.



Uni-Flo square and rectangular diffusers with louver face design.

Square and rectangular diffusers are also available with a louver face design to meet specific architectural requirements. These are available with a variety of vane assemblies to provide 4-way, 3-way, 2-way, or 1-way air patterns.

Combination Air Distribution and Lighting Units



The Mobilex is an enclosed light troffer combining an air distribution diffuser (1' x 2', or 2' x 4' sizes) with two, three, or four fluorescent tubes.

The Paraflo (upper right) is a louver-

type troffer.

Air distribution assembly by Barber-Colman, lighting by Day-Brite Light-

ing, Inc.

Paraflo combination air distribution and lighting



High Velocity Units

High velocity air distribution, pioneered by Barber-Colman, requires technically designed units which will reduce the high velocity air to conventional velocities and correctly distribute it to the occupancy zones at minimum noise levels. Barber-Colman offers a complete line of single- and double-duct control equipment, including constant volume control.

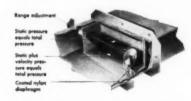


Barber-Colman high velocity control unit with Venturi-Flo diffuser.



Uni-Flo double-duct constant volume control

The Uni-Flo double-duct control unit with self-contained constant volume control simplifies stabilization of high velocity systems. It mixes hot and cold air and reduces it to conventional velocity at minimum noise level. Cfm delivery and air mixture temperatures are held within very close limits. A choice of motor operators is available to control the air valves, including Barber-Colman electric and transistorized types.



Model SCR constant volume regulator

The Model SCR constant volume regulator is applicable anywhere in a single- or double-duct system where there are changes in static pressure. No motor operator or other power source is required. It provides accurate constant volume control, reducing high velocities for branch ducts.



#### All yours to sell when you become a Perfectionist

#### PERFECTIONISTS SELL FORWARD TREND STYLING

Years ahead of the rest, Perfection's FORWARD TREND Styling is an industry first . . . the *only* furnace selected to be shown as the "heating of the future" at Brussels World's Fair.

#### PERFECTIONISTS SELL WITH POWERFUL LOCAL PROMOTIONS

Special promotion programs, specifically tailored to your selling seasons, colorful literature and detailed spec sheets, every display and merchandising help...all available when you sell Perfection!

#### PERFECTIONISTS SELL EXCLUSIVE FEATURES

Dynamic features make your selling job easier. For example, Perfection's exclusive REGU-LAIRE® matches heat circulation to demand and ends on-off, hot and cold blasts for top comfort performance.

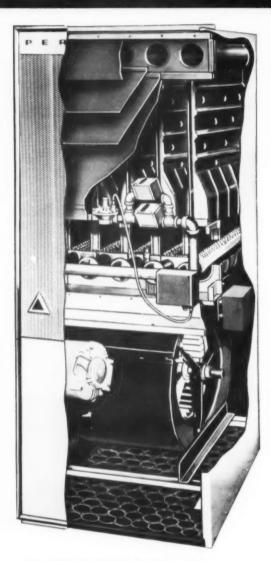
#### PERFECTIONISTS SELL A COMPLETE LINE

Upflow, counterflow, basement or horizontal models in every capacity you need — Perfection has a model to match any installation requirement.





## APERFECTION ...1960



FULL LINE FLEXIBILITY Perfection offers a size and type of furnace to meet every installation requirement — upflow, counterflow, lowboy or horizontal with inputs from 50,000 to 200,000 BTUs. Ample capacity for add-on air conditioning.

IN GAS

Look at every detail for the extra features and quality that make Perfection easier to sell, install and service. Careful en-

gineering inside means overall compactness outside to fit any space. Pre-wired and factory assembled, Perfection is ready to install—fast! Front panels remove quickly for easy servicing. From top to solid base, Perfection backs your reputation with comfort performance and built-to-last dependability.



PERFECTION HEAT BANK No ordinary heat exchanger here—the Heat Bank's flame-contoured bottom and turbulent, long flue travel passages are designed for full fuel efficiency. Long life cast iron burners are easy to service, feature exclusive cross-over ports for smooth lightup without "popping."



ALUMINIZED SHIELD FOR ZERO CLEARANCE INSTALLATIONS An aluminum-finished, interior metal baffle permits zero clearance installation to combustibles. Expansion and contraction noises are quieted by the special ridge design.



PATENTED REGULAIRE® AIR CONTROL GIVES YOU A BIG SALES PUNCH!

Perfection Regulaire solves one of forced-air heating's most serious problems — stop-start, hot and cold air circulation. Regulaire's bimetal coil controls an air damper in blower section, permits gradual opening of the damper until furnace is delivering full heat. Only Perfection has this powerful sales feature.

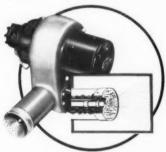
Perfection also manufactures a complete line of conversion burners, air conditioners, heat pumps, water heaters and portable room heaters.

## loaded with sales appeal, inside and out

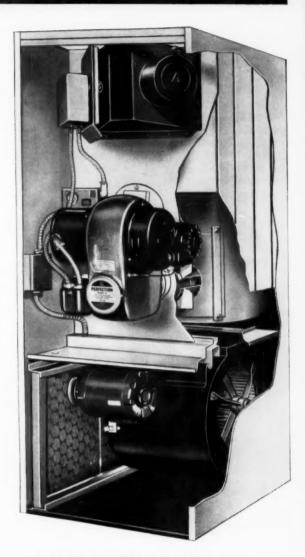
Perfection's dynamic oil furnace line combines FORWARD TREND STYLING with feature-packed internal design for top-notch sales appeal. Perfection engineering standards are your guarantee of true comfort, dependability and economy — the kind of equipment performance that you install with confidence. Perfection oil-fired furnaces are completely wired, completely assembled and ready for installation.



MORE EFFICIENT HEAT EXCHANGER Completely new heat exchanger design features a big capacity, wrap-around radiator for extra long flue travel. Internal baffles in the drum and radiator sections increase heat transfer efficiency, insure full rated capacity. Long life ceramic refractory promotes quiet operation, heats up quickly to efficient operating temperature. Combustion chamber is fully assembled and in-place for easy installation.



MULTI-JET BLENDER SAVES ON FUEL Perfection's hi-pressure oil burner with unique Multi-Jet Blender assures quiet, pulsation-free operation. Special design of stainless steel head mixes oil and air perfectly for top fuel economy. Lower nozzle temperatures give years of added life; vital parts are easily accessible through back of burner.



FULL RANGE OF MODELS AND OUTPUTS Upflow, counterflow and basement models for every type of installation; outputs from 84,000 through 140,000 BTUs, There's ample capacity for add-on air conditioning.



FREE PERFECTIONIST BOOKLET
Tells you all the profitable facts en
why it pays to become a PERFEC-TIONIST. Yours for the asking.
Call, write or wire for details. APERFECTION DIVISION

HUPP CORPORATION CLEVELAND 10, OHIO

GUARANTEED COMFORT SINCE 1888



One dependable source for all your requirements on SHEET and STRIP STEEL

Everything you need in SHEETS, STRIP and PLATES is just a quick phone call away. From one dependable source . . . GREAT WESTERN STEEL . . . you get fast personalized service on the sheet and strip steel you want, the way you want ... when you want it.

## Principal Products

- COLD ROLLED SHEETS
- HOT ROLLED SHEETS
- HOT ROLLED PICKLED SHEETS
- GALVANIZED SHEETS
- GALVANNEALED SHEETS
- LONG TERNE SHEETS
- . COLD ROLLED STRIP
- . HOT ROLLED STRIP . HOT ROLLED PICKLED STRIP
- GALVANIZED STRIP

In addition to the above the MILWAUKEE plant carries:

- HOT ROLLED BARS
- BAR SHAPES
- STRUCTURALS
- FLOOR PLATES
- PLATES

The picture that can be taken only once the fast-maving flow of orders on one of the loading docks at Great Western Steel.

UNUSUALLY LARGE STOCKS in a vast number of sizes. gauges and grades for immediate shipment!

MODERN PROCESSING EQUIPMENT ... Steel is prepared to your exact specifications.

QUALITY CONTROL assures highest uniform quality at all

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MILWAUKEE Call HI litop 4-3092

ESTABLISHED 1918

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DODGE REPORTS are individual building project reports. They're mailed to you daily. You get REPORTS on just the types of building you're interested in—in the area where you do business. They tell who's going to build what and where . . . whom to see . . . when bids are wanted . . . who else is bidding . . . who gets which awards.

When you use **DODGE REPORTS**, you always know what's coming up. You don't depend only on invitations to bid. You concentrate on jobs you *know* will be profitable.

If you do business anywhere in the 37 Eastern states, DODGE REPORTS are for you.

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Send me the book: "How Subcontractors Get More Work in New Construction" and let me see some typical Dodge Reports for my area. I am interested in the general markets checked below.	GORVEROTORS
☐ House Construction ☐ General Building ☐ Engineering Projects (Heavy Construction)	COMPORATION
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#### GENERAL "800" TURNS HOT, DRY AIR INTO COOL PROFITS!

4 out of 5 Homeowners Need This Furnace

Humidifier!





GENERAL FUEL OIL FILTERS

- Lifetime cast iron and steel construction protected with durable, rust-resistant plastic coating.
- Hi-density wool felt cartridges trap moisture, dirt, lint; prevent nozzle clogging.
- Wool felt cleaned and permanently bonded to center core—can't crumble.
- 3 models-1A-25A, 2A-700A, 2A-300.

CLEAN RIGHT Soot Remover



- Saves up to 25% in heating costs in a single heating season!
- Works in any type heating plant-oil,
- gas, coal, wood.

  Safe! No flash, flare or intense heat.
- Fast acting! Destroys a ½" soot layer or more in 2 to 5 minutes.
- · Non-corrosive; won't harm burner parts.
- Made for General Filters, Inc.

## Easy to Install...Clog-free...

Hot, unhumidified air — like the hottest Sahara breezes — can soon dry out furniture glue, cause plaster cracks, make carpets brittle. Head colds, dry skin and scratchy nose and throat can result, too. Yet, fewer than one warm air furnace in five has a humidifier.

Many heating servicemen are earning as much as \$3000 a year in extra business by selling the health, comfort and protection features of the GENERAL 800 HUMIDIFIER.

GENERAL HUMIDIFIER is foolproof, simple to install during regular service calls (average time: 30 minutes), and competitively priced. It's backed by a 1-year guarantee on all parts—protecting both you and your customers.

When you service a furnace without a humidifier, point out these dangers of too-low humidity . . . and recommend a General.

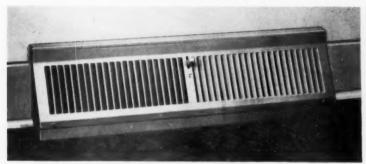
## GENERAL FILTERS, INC.

43800 Grand River Avenue NOVI, MICHIGAN

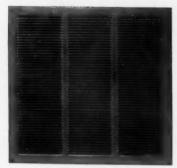
IN CANADA: Canadian General Filters, Ltd., 39 Crockford Blvd., Scarborough, Ont.



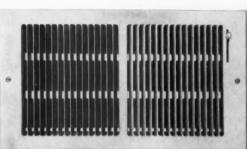
Member of the Humidifier Association A & A... the source of satisfaction for ALL your register requirements... AIR CONDITIONING, PERIMETER, GRAVITY



P-68 BASEBOARD DIFFUSER



A-05 FLUSH RETURN AIR GRILLE



AIR-MASTER (M series) MULTIPLE LOUVRE
AIR CONDITIONING DIFFUSER

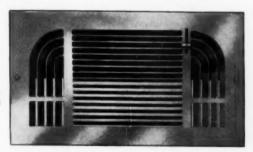


P-28 FLOOR DIFFUSER



STEEL LAUNDRY

RAINBOW -- WALL DIFFUSER





We manufacture a complete line of registers, diffusers and grilles for all types of heating and air conditioning installations. Stock items are packaged in easy to handle, easy to store containers and large inventories are maintained for immediate delivery. For a quick answer to any of your grille problems, call us collect. Write for your copy of Catalog 58.

The A & A REGISTER COMPANY

### FOLLANSBEE

### Seamless TERNE



gutter and downspout



chimney flashings



valley



window and door flashing



copings



flashings

### the roofing metal you'll like working with . . . Follansbee Terne

Follansbee Terne, the oldest new roofing metal in use today, has characteristics which make it the most suitable metal you can work with in roofing and weathersealing work. The reasons for its superiority are simple. For example:

### Follansbee Terne is easy to work

Terne is a very ductile metal, forms easily with both mechanical and hand tools.

Terne is easy to solder, its tin-lead alloy coating forms a perfect soldered joint.

Terne requires no special surface treatment or special primer and can be painted immediately.

Terne comes in eleven different widths, from 4" to 28". You'll save money by saving shearing time.

Terne requires fewer expansion joints, because it expands and contracts less than other roofing metals. Thus it can be installed in greater lengths before expansion joints are necessary. Installation costs are reduced.

#### Follansbee Terne Performs Better, Gives You a Better Job

Terne lasts a lifetime, a fact proved many times over. There are installations of Terne that have been in service well over 100 years—a record no other roofing metal can match!

Terne need not be painted as often, a fact that building owners will appreciate. Terne's coating is perfect for painting, makes an excellent bond with paint.

Terne can be painted any color, any time, an important advantage to color-conscious owners who want color in such things as gutters and downspouts and on the complete roof—and like the fact that color can be changed at will.

Terne expands and contracts less, and thus moves less with changes in temperature—joints and seams stay tight.

### Follansbee Terne is a profitable line

Terne is competitively priced and offers an excellent profit to both the sheet metal distributor and contractor.

You'll like working with Follansbee Terne for many reasons—all of which make for a better, more profitable job for you.

### **FOLLANSBEE**

STEEL CORPORATION

Follansbee, West Virginia - Sales Offices in Principal Cities

# You <u>can</u> predict performance if they are...



REGISTERS, GRILLES DIFFUSERS



SIDEWALL OR CEILING DIFFUSERS



ADJUSTABLE DEFLECTION GRILLES



HIII

RETURN AIR GRILLES



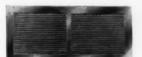
ADJUSTABLE DEFLECTION REGISTERS



SQUARE



MULTI-SHUTTER WALL REGISTERS



RETURN
AIR GRILLES
FLEXIBLE FIN TYPE



ROUND

When performance really counts, "Air Mate" engineered products, backed by engineering data, provide you the efficient answers to your heating and air conditioning problems.

A complete line of Registers, Grilles and Diffusers is available for every requirement.

Write for free illustrated catalog with complete engineering section that is invaluable to help you to properly select, locate, and size return grilles and outlets for your installations.

DRY MANUFACTURING CO.

INCORPORATED

P. O. BOX 797 . WINTERS, TEXAS

# Now-new aluminum duct sheet at "per-job" cost near galvanized

No shortage here . . . this new Reynolds aluminum sheet now available from Ryerson stocks



A new aluminum sheet, known as duct stock, is now available for immediate shipment from Ryerson—in both flat and coil sheets. Sheet metal shops and fabricators of duct accessories will find prices attractively low—comparing favorably on a "per-job" basis with galvanized steel.

### Check these money-saving advantages

Weighs 1/3 as much as coated steel. A pound covers three times the area. Fabricated sections are easily installed by smaller crews—usually require no special lifting rigs and fewer and lighter supports.

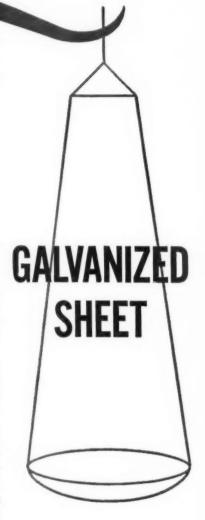
Won't rust. Cooled air for air conditioning often produces condensation on outside of ducts. Aluminum won't rust even under these conditions—lasts longer than coated steel.

Easy to fabricate. Readily formed to any shape by standard metalworking methods. Will take Pittsburgh lock seam without cracking and is easily riveted, bolted, clinched, upset, welded, bonded, etc. Worker fatigue is reduced and output increased.

Lower friction, smaller heat loss. More effective because they deliver larger proportion of heat input and lose less by radiation. Aluminum ducts can be smaller than coated steel ducts of same capacity.

No finish or painting required. The clean surface of aluminum sheet is its own best finish. No protective coatings, such as paint, are required to keep air and humidity from the surface. Less scrap. Available in scrap-minimizing coils (36" and 48", depending on thickness) at lower than flat sheet price.

Take advantage of current availability—and all the savings aluminum duct sheets offer. Call Ryerson for prompt shipment from stock.





STEEL \* ALUMINUM \* PLASTICS \* METALWORKING MACHINERY
NATION'S MOST COMPLETE SERVICE CENTERS IN PRINCIPAL CITIES COAST TO COAST

### **Got Pricing Problems?**

JANUARY IS TRADITIONALLY the month for stock-taking. This isn't just a matter of physical inventory. It also means analyzing what has happened during the past 12 months and determining how the year's experiences can be profitably applied to the next 12 months' operation.

In general, 1959 was a good business year. New house construction was up, warm air heating installations increased correspondingly. The long, hot summer produced a good increase in central residential summer air conditioning system sales. And commercial and industrial sheet metal contracting moved ahead.



Dealer-contractors report the pricing situation improved in the warm air heating and central air conditioning fields — not as much as it should have, but better than in previous years. In the commercial and industrial sheet metal field, competition continued very stiff and little improvement in pricing was evident.

It would seem the main lesson learned during 1959 is that more attention to estimating procedures is needed badly, because inaccurate estimates apparently are the primary cause of too low proposals. Carelessness in reading construction specifications often results in overlooking costly equipment or improperly estimating labor to complete the job as required.

A typical example of what brings about poor pricing was demonstrated to us recently in a visit to an Ohio sheet metal contractor. While we were in his office a customer called, requesting quotations for work on a new addition to his plant. The sheet metal contractor asked him if he had reached a decision on another bid the contractor had submitted. He was told the job had been given to another firm for \$3742.

When the contractor hung up, he checked his estimating and pricing procedures for that job. He turned to us and said, "My bid was \$4219. My costs were \$3981. I don't know how it can be done for \$3742."

This sheet metal contractor's estimating system has passed the test of time and is known to be correct. It seems reasonable, then, to assume the contractor who got the order must have overlooked some of the costs involved in the job. Obviously, it would have paid him to have taken more time to review all the aspects of the job before submitting a bid that would require spending the profit from another job.

One way to cut down on expensive oversights is to use a check-list on each estimate. Paraphrasing a frequently-heard slogan, "The life you save may be your own," we could say, "The profit you save may be your own."

If, in looking back over the profit picture for 1959, you find some jobs were improperly priced, try using a check-list during 1960, and your profit picture will be better 12 months from now.

# Heating Standards Clinch Modernization Sales



STANDARDS FOR RATING HEATING SYSTEMS card is posted prominently in showroom so visiting prospects can be shown the differences between "Good," "Fair" and "Poor" heating systems before inspecting demonstration equipment

Newspaper advertising, customer referrals, and a reputation for good work line up heating sales leads, and the Standards for Rating Heating Systems card puts over the quality story

"The best customer is one who believes he has made a wise decision when he places his order," asserts Harry A. Wurtzel, Freeport Heating and Appliance Co., Freeport, Ill. And this is the attitude he shoots for in his sales approach. Mr. Wurtzel employs American Artisan's Standards for Rating Heating Systems card to show prospects how to select the kind of heating systems they really want and need for their homes.

Freeport Heating specializes in modernization work. Over 90 percent of its annual business volume is in this category. Many of Mr, Wurtzel's prospects come to him through referrals from customers who appreciated his guidance and were impressed by the *standards* card which showed them how a "Good" heating system is expected to perform.

Newspaper advertising produces many leads for Freeport

Heating, too. Each ad is two columns wide,  $4\frac{1}{2}$  in, deep. It contains large, bold type, ample white space, a portrait photo of Mr. Wurtzel and the National Warm Air Heating and Air Conditioning Association symbol, identifying the firm as a member.

The photograph identifies Mr. Wurtzel personally with the company so people will think of Free-port Heating and Harry A. Wurtzel synonymously.

### Sells Benefits, Not Parts

The Standards for Rating Heating Systems card has turned out to be a very effective prestige-builder, Mr. Wurtzel says, by "helping to establish our company as one which puts in only quality work."

When he talks to prospects, Mr. Wurtzel carefully avoids dissertations on the mechanical features of the equipment he recommends. Instead of telling the prospect the furnace he proposes has a double inlet centrifugal blower with forward tipped blades capable of moving a large volume of air at minimum speeds, for example, he says: "The type of heating system I propose for your home is classified on this standards card as 'Good'. As you can see in the qualifications under the 'Good' system heading, the blower will operate continuously, gently directing comfortably warm air to each room without interruption when the outdoor air temperature is 40 F or less. And you won't notice it because the blower will operate more quietly, with less vibration. and will last longer than the blower in a less desirable system." He's



THE TWELVE STANDARDS are applied in demonstration of equipment by Harry A. Wurtzel (left) to prospect who has been intrigued by quality story in original sales presentation. Point-by-point demonstration of standards clinches many sales

talking about the prospect's comfort, not describing a piece of complicated machinery.

He applies this technique to each of the 12 points listed under the "Good," "Fair" and "Poor" system headings, and he says, "I can watch the prospect's interest mount as I describe each of these points in terms of its contribution to his and his family's comfort." This display of interest in the prospect's welfare creates attention to the proposal and acceptance of his recommendations, Mr. Wurtzel believes.

### **Analyzes Prospect Objections**

Mr. Wurtzel knows from experience that even the most "sold" prospect can be counted on to offer objections to buying immediately. He classifies these "balks" in two categories: 1) a genuine objection based on a specific idea or impression, which can often be erased with a few words of explanation once the source of the objection is uncovered; and 2 ) a pre-formed and deep-set price objection which is usually based on a firm conviction rather than a general impression or mistaken idea.

When he encounters a price objection, Mr. Wurtzel again produces the Standards for Rating Heating Systems card and puts it to work. Having already established in the prospect's mind the desirability of the "Good" system, he proceeds to associate the lowpriced system with the "Poor" classification. If, for example, a prospect announces that he has received quotations from a competitor for \$250 less, Mr. Wurtzel employs the standards card to demonstrate how he can duplicate and beat the offer by compromising comfort. "All we have to do,"



THIS ARTICLE describes another way the Standards for Rating Heating Systems card has been used to sell modernization. Attractively designed and written in language the homeowner can understand, the

useful new standards card lists the 12 points which contribute to complete winter comfort in the home, and rates the prospect's heating system as "Good," "Fair" or "Poor" in terms of each of the 12 comfort conditions. The card adds authority to the sales presentation, and proves conclusively to the prospect the advantages of buying for quality rather than price. Copies of the standards card are available at two cents each from American Artisan.

he says, "is cut out two supply duct runs and one return air duct, size the ductwork for heating without consideration for eventually adding air conditioning, use a smaller blower and poorer quality furnace, and eliminate the time it takes to adjust the system for continuous air circulation. Then we can cancel our free service policy and specify the cheapest supply air grilles we can find.

### **Tells Effects of Compromise**

"This is the physical saving we can effect, in terms of dollars and cents. In terms of comfort, here's how you stand after these compromises:

"No longer can you control temperatures in different parts of the house to match the requirements of each. Eliminating two supply runs reduces the amount of clean, warm air which reaches the farthest rooms from the furnace. You now feel cold drafts. If you decide to add summer air conditioning later, it'll require expensive modification of the duct system and a new blower. The capacity of the furnace and its

components will be taxed during coldest weather, and you won't have the benefit of continuous blower operation to keep the warm air flowing to all areas of the house. Now your system rates 'Poor' on this standards card—the best you could hope to get for the cut price you were quoted.

### **Assures Long-Run Savings**

"And consider this: You won't be saving a single penny in the long run, by buying a low price system. After a few seasons, you'll find you have probably spent more, because of higher operating costs, than you saved on your initial investment. So you see, the 'Good' system is actually even more economical than the cheaper installation, in addition to all the immediate advantages it offers."

By this time, the prospect is usually somewhat more interested, if not sold. But Mr. Wurtzel has as many "clinchers" as there are standards, and he goes on, to make absolutely sure the price objection is squelched once and for all by the quality story. He tells of the importance of adequate

ventilation to eliminate stale odor and assure a minimum of 72 percent combustion efficiency. "That's a feature of a 'Good' system," he points out. "In a 'Poor' system you get no odor removal and less than 57 percent combustion efficiency." Quiet operation and even, comfortable temperatures from room to room and floor to ceiling are described as characteristics of the "Good" system.

Mr. Wurtzel stresses the advantages of air purification, lower fuel bills, flue gas venting adjustments to keep products of combustion out of the living area, quiet operation, safety factors and the various controls which are features of the "Good" system—all of which must be compromised or sacrificed in a "Fair" or "Poor" system. Once more he points out that a dealer-contractor can't, in good faith, offer a service guarantee on anything less than a "Good" system.

He describes the service department's functions and its responsibility for providing free adjustments and service during the contract period, and he points out that if he attempted to provide the same service on a "Poor" system any dealer-contractor would soon be out of business. He concludes, "So you see, cutting corners doesn't save money but actually increases your cost over the long run."

### **Invites Prospect to Showroom**

This logic, plus Mr. Wurtzel's evident desire to help them select the heating systems best suited to their needs, convinces most prospects that it's to their personal advantage to do business with



FOLLOW-UP PHONE CALL keeps prospect thinking about demonstration and quality story he heard in the showroom. If sale still isn't closed . . .



PERSONAL LETTER is mailed to the prospect, along with a copy of the standards card, reminding him of company's ability to solve his comfort problems

## Persistent follow-up of standards presentation and showroom demonstration closes sales before prospects "cool"

Freeport Heating, Of course, not all "convinced" customers will place an order right away. These prospects are invited to the company's showroom to inspect actual equipment and participate in demonstrations.

Here the prospect finds the Standards for Rating Heating Systems displayed prominently. He is given a copy of the card and each point is explained and demonstrated on display models.

#### Follow-Up Keeps Sale Hot

Mr. Wurtzel doesn't let the sale cool when the prospect leaves the showroom, either. He's on the phone in a few days with a follow-up call offering additional assistance in helping the prospect rate his heating system with the *standards* card and in comparing his proposals with those of the competition. He stresses the value of the *standards* card again, remind-

ing the prospect that the 12 points listed are the product of years of research and extensive study by industry experts who are unbiased and who sought only to produce a check-list which would assure maximum comfort in the home.

Nor is the phone call the last ditch effort to close the sale. Many sales have been won by a personal letter which is sent out after the telephone call.

### **Records Tell Story**

A follow-up card is maintained for each prospect. The  $3\frac{1}{2} \times 5$  in, file card contains the prospect's name, address, phone number and dates of contacts. The prospect's requirements and the company's recommendations are summarized and the lead source is identified. Cards for current prospects are filed separately and reviewed periodically until a decision has been made.

Another lucrative lead source is a 4 × 6 in. "record of installation" card which is used primarily to assure that an annual service checkup is performed on each job. A report on each call and the nature of the work are entered on the record card. Satisfied customers are asked for leads and their suggestions are noted on this card as well as the prospect list. This reminder card has played a large role in development of the company's enviable reputation for reliable and efficient service work and trouble-free installations.

Summer air conditioning has become an important part of the firm's operation. Freeport Heating does its own refrigeration work in connection with cooling installations. This growth is not surprising because the same philosophy of quality for a fair price applies to sales presentations and installation of summer air conditioning systems.

## **Radiant-Convection System Combines Benefits**



COUNTERFLOW FURNACE for panel-convection system is installed in first floor closet. Grille conceals return air connections. Cabinet containing 3 ton direct-expansion cooling coil and separate blower for summer operation, directly behind furnace, is accessible through another door



CEILING DIFFUSERS in basement near outside walls provide ceiling panel-convection heating

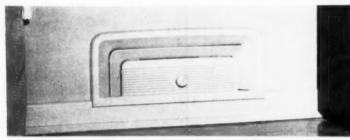
To provide a year 'round air conditioning system which could offer: 1) many of the advantages of radiant heating and few of its weaknesses. 2) the versatility and efficiency of perimeter heating, and 3) effective summer air conditioning, engineers selected a combination radiant-convection system for a two-story Manhattan, Kansas residence with a basement which is largely above grade level.

The nine-room, masonry building is on the southern slope of a hill. The slope of the hill exposes approximately half of the basement wall to the elements. Outside walls are 4 in. cut stone, 4 in. haydite block, 1½ in. furring strips, 2 in. glass wool batt insulation, metal lath and plaster. Basement walls are 4 in. cut stone and 8 in. haydite block. The open spaces in

... of radiant and perimeter heating and summer air conditioning in a stone-walled residence with full basement and two upstairs levels



HILLSIDE HOUSE has nine rooms, two floors and largely-exposed basement. Outside walls are cut stone and cement block with two types of insulation



BASEBOARD REGISTERS around the first floor perimeter distribute conditioned air. Distribution system under slab provides floor panel heating and air conditioning as well as benefits of convection

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Physics Dept.
Kansas State University

the concrete blocks were filled with loose vermiculite.

### **Use Floor, Ceiling Panels**

The first story is heated and air conditioned by a floor panel-convection system; the basement by a ceiling panel-convection system. Conditioned air is delivered to a plenum chamber formed by the open web steel joists between the first floor slab and the basement ceiling, and is distributed to baseboard registers in the first floor and ceiling diffusers in the basement. The floor is a 21/2 in. concrete slab laid on web steel joists. The basement ceiling is metal lath and plaster (Fig. 1). Its floor is completely covered with rubber tile and small rugs are distributed throughout the house.

The furnace is a gas-fired 150,000 Btuh input counterflow unit in a closet on the first floor. A remote 3 ton water cooled condensing unit and c blower-expansion coil unit mounted beside the furnace provide summer air conditioning. The cooling unit and the furnace discharge conditioned air into the same distribution system.

To avoid hot spots on the floor surface near the furnace discharge opening into the plenum, and to help distribute the air, short ducts were installed in the plenum chamber (Fig. 2). The baseboard registers deliver conditioned air around the outside walls. Return air from the upstairs is drawn off the ceiling at the furnace. Return air from the basement reaches the furnace through an open stairwell

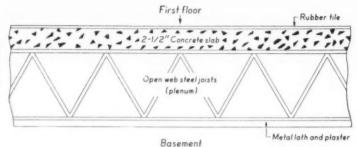
in the center of the house, just off the kitchen.

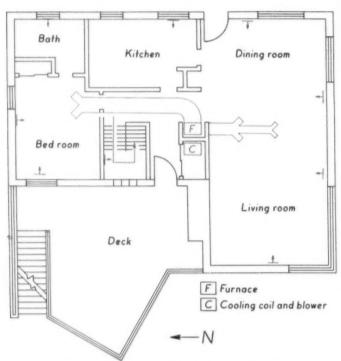
### **Record Significant Data**

During construction, thermocouples were installed in the slab, at the center of the floor-ceiling plenum chamber and in the basement ceiling plaster, to record data for evaluation of the system during the first heating season.

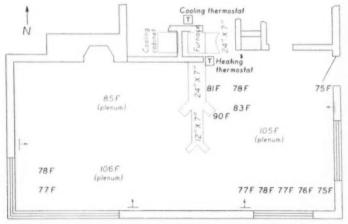
During an evening when the outside temperature was 15 F and the indoor temperature was 72 F, a maximum floor temperature of 90 F was recorded in the living room. The lowest floor surface temperature was 75 F. The inside-outside temperature difference was approximately 70 percent of design. Maximum plenum temperature measured during this period

1 PLENUM CHAMBER IS FORMED between concrete slab for first floor and basement ceiling. Conditioned air is distributed from this plenum upward to baseboard registers, downward to basement ceiling diffusers





2 SHORT DUCTS in plenum chamber distribute conditioned air to basement and first floor and eliminate hot spots near furnace. Return air from first floor is drawn from ceiling grilles. Stairwell handles return air from basement



3 LIVING-DINING ROOM TEMPERATURES at floor surface were recorded at various points by thermocouples installed in slab, plenum and basement ceiling. Outside temperature was 15 F, relative humidity was 34 percent

was 106 F; minimum was 86 F. Some of the data obtained is represented schematically in Fig. 3. Floor-to-ceiling temperature difference is small—about 2 to 3 deg.

The system has proved satisfactory during the cooling operation, too. No condensation has been noted on floor surfaces, even during extended periods of operation under heavy summer loads.

The system is controlled by two thermostats, one for cooling and one for heating, located as shown in Fig. 3. The owner reports that settings of 70 F during the winter and 78 to 80 F in summer have produced satisfactory comfort.

#### **Warm Spots No Trouble**

The warm spots have not been objectionable to the occupants. Neither have any signs of significant floor-to-ceiling temperature gradient and stratification been indicated. The ceiling panel-convection heating system for the basement has proved adequate without supplemental heating. When the ceiling diffusers are off, the basement usually is 2 deg cooler than the first floor, With diffusers open the basement is about 2 deg warmer.

After living with the year 'round system through several heating and summer air conditioning seasons, the occupants are completely satisfied, and are convinced that the panel-convection arrangement offers a number of advantages over many other types of systems they could have had.

### New developments in heating . . .

... which will affect the warm air

dealer-contractor, immediately and in years to come, are explored in a two-part analysis by Herbert T. Gilkey, NWAHACA director of technical services, who took on this broad subject at the fall conference of the Building Research Institute. This article concludes his discussion.

# Advances in System Design Produce New Heating Methods

Increasing awareness of the vital effect of the system itself on the efficiency of the components is showing up in improved quality and greater versatility of all types of heating installations



DUAL DUCT SYSTEM is often specified for schools and similar structures. Trunk ducts carrying warm air and unheated, filtered air are installed under corridor floors. Air is tempered in mixing boxes and distributed through branches to each room according to its requirements

LAST MONTH we analyzed the advances—real and projected—in heating methods and equipment. We weighed the qualifications and characteristics of developments such as thermocatalytic reactors, thermionic conversion and induced draft combustion, from the standpoint of ASHRAE requirements for satisfactory winter air conditioning. We also discussed new designs and applications of various components and auxiliary equipment.

Now let's inspect developments in the broader area of systems.

In a sense, the system is far more important than either equipment or components, but it is far more difficult to discuss constructively. A few generalizations can be made, however. Foremost is the fact that the air distribution system is being applied in a much greater variety of installations than ever before. It is experiencing increasingly greater acceptance in apartment buildings, school buildings and commercial structures. There are several reasons, varying with the type of application. For example, individual heating units and systems for each apartment are now quite common. This is brought about partly by the need for summer air conditioning in apartments, definitely a competitive factor from the landlord's standpoint. Another consideration is landlords' inclination toward tenant operation and tenant responsibility for all utility bills, including heating.

In schools, we find an increasing awareness that the flexibility and response characteristics of air distribution systems assure the type of control necessary for maintaining proper conditions within each classroom. Children are easily distracted, and the right combination of temperature, air circulation, and air

### GILKEY -

"The big change, the big forward step in heating, is this increased awareness of the system by the homeowner, the builder, the heating and air conditioning dealer-contractor and the manufacturer."

freshness is essential for children to benefit fully from their educational experiences,

Furthermore, taxpayers have learned the hard way that school buildings must be expanded continually to keep up with the influx of students. One problem involved in adding to an existing building is the extension of utilities, and the ever-present possibility that existing utility systems must be drastically and expensively enlarged to satisfy the requirements of the additions. From the standpoint of heating, this problem has been minimized by air distribution arrangements in which one heating unit serves an individual classroom or two adjacent classrooms. This approach also assures flexibility of control where heating requirements vary drastically from one room to another at different times of the day. These are "plus value" features, over and above the inherent control and response characteristics of air distribution systems.

### Provide Zone Control with Central Furnace

The same result can be obtained by using a larger capacity, centrally located furnace in an addition to a school building. In this case, a zone-controlled system must be used, and introduction of fresh air into each room must be provided for in the system design. This is not difficult, and it provides the same high degree of comfort without extending or overtaxing an existing heating system. Also, if supervision of heating equipment is required, it is obviously more economical with a central system than with several individual units. Generally speaking, however, automatically-fired units require little supervision, and maintenance can be handled most satisfactorily on a scheduled basis.

### **Embedded Duct Systems Popular**

Many school installations are now heated by embedded-duct perimeter systems. Sometimes the duct is embedded near the perimeter of the building (see drawing). Fresh air is introduced through the furnace, and control is achieved on the basis of one furnace per exposure. In other applications, trunk duets are located underneath the corridor floor and branch duets serve each room (see photo). The trunk duets are often installed in pairs — one carries heated air; the other, unheated but filtered ventilation air, Mixing dampers, controlled by the room thermostat, adjust the proportions of heated and ventilation air required for the rooms. The novelty of this type of installation is that the embedded duets warm the floors, in addition to providing uniform room air temperatures through introduction of conditioned air at the building perimeter.

The basic principle of this system is certainly not new, for the dual duct system is commonly used in many types of commercial buildings. In fact, many of the so-called high velocity or high pressure systems use this same approach. Even though their design is beyond discussion at this time, these systems are often of a proprietary nature and their design involves many considerations including ducts, sound attenuation, etc.

### **Cooling Boosts Air Distribution System**

Obviously, the increasing acceptance and need for air conditioning has accelerated the acceptance of air distribution systems, for the smallest residence or the largest commercial structure. Some will claim that the systems used in some of the larger structures are not really air distribution systems, but they certainly are - even though the heat source may be something other than a direct-fired furnace. It is rather difficult to generalize on some of these points, but the fact remains that today's office building contains a great deal more air distribution equipment, including blowers, ducts, grilles and filters, than did its counterpart of just a few years ago. Furthermore, all the factors in the definition of comfort air conditioning - temperature control, air distribution, cleanliness, and humidity control - are considered in the design of systems for these buildings.

### **Consider 3 Zones in Office Buildings**

Another very interesting approach has been the application of the heat pump in office buildings. In the modern, glass-walled office building we generally find about three distinct and separate zones:

- An exterior zone on the sunny side of the building. During almost any season of the year this zone will require cooling whenever the sun is shining into it
- 2) The interior zone, which is not affected directly by sunshine. It will require cooling whenever it is occupied. Because the interior zone has no exposed

surfaces, it has no heating load. The heat from lights, occupants, and other internal sources shows up as cooling load.

3) Exterior zones on the shady side of the building. These areas will require heating under most circumstances. The heat pump has been applied in this type of installation to cool the sunny exterior zone by pumping heat from it to the shaded exterior zone which requires heating. Of course, this again is a grossly simplified explanation of what is done, but the principle is one which tantalizes the imagination.

### **Air Curtain Applications Expanding**

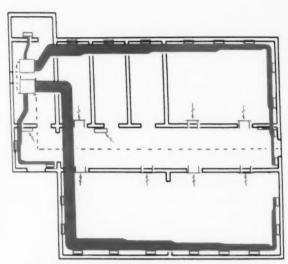
Another unique application of air circulation is the air curtain — the use of air in place of a door, in such a way that the infiltration of unheated outside air or exfiltration of heated indoor air is minimized. In general, this is accomplished by delivering air downward across the building entrance from grilles above the doorway, and collecting it in grilles at the threshold. Although most commonly used in high traffic density entrances in one-story buildings, they have been used in multi-story buildings also.

Careful air curtain system design is a must. Wind can break through the curtain, and the chimney or stack effect of multi-story buildings can be a problem during the winter. Dirt collected by sidewalk level intakes must not interfere with the operation of the curtain. While these problems are not overwhelming — most of them have been satisfactorily solved — the application must be very carefully designed.

### **Perimeter System Takes Over**

All these advances and developments in the application of air systems to commercial and industrial structures are impressive. But the greatest and most encouraging development is in the residential field. During the last several years, the concept of the comfort system has undergone great change. We have seen perimeter heating and cooling all but replace other arrangements in most of the country. Investigations show the results obtainable from perimeter systems usually are so far superior to those produced by other types of systems that this change is fully justified. On the other hand, we must not forget the conditions under which any residential heating system is installed if we are to predict its performance.

The heating system is unlike any other component which goes into a residence. It is literally manufac-



EMBEDDED DUCT PERIMETER SYSTEM is popular method of heating small school buildings. Fresh air is introduced through furnace and good control is maintained by using one furnace per exposure

tured on the job. The furnace, the controls, the supply outlets, the ducts, and other items which collectively become the heating system are nothing more than components. In this respect, the heating industry is a far different thing than the appliance industry, and anyone who attempts to buy heating as he buys an appliance asks for trouble.

### **Human Factor Is Vital**

This means, of course, that to evaluate the performance to be expected from a heating system, we must take a look at the man who designs, installs, and adjusts this heating system. He is the all-important factor in system performance. He can make or break the system, and neither a platinum furnace nor 24-karat gold diffusers can alter this fact.

The dealer-contractor is a businessman and an artisan. He is not an architect and often he is not an engineer. This is not to say that he is not qualified to design and install good heating systems, for he is — both by training and by experience. Furthermore, he is becoming increasingly aware of the importance of the system which he installs. His customers — the architect, the builder, and the home owner — are also beginning to realize its importance.

The big change, the big forward step in heating, is this increased awareness of the system by the home owner, the builder, the heating and air conditioning dealer-contractor and the manufacturer. Without this awareness, no other progress would be possible, now or in the future. With this awareness, the door is open to progress at all levels of the industry.

The undersigned agrees to pay for the above work the sum of \_\_\_\_\_\_\_Dollars (\_\_\_\_\_\_\_), as follows \_\_\_\_\_\_Dollars, (\$\_\_\_\_\_\_\_), payable upon installation of gutters, the sum of \_\_\_\_\_\_\_Dollars (\_\_\_\_\_\_\_), payable upon completion of roughing-in, and balance upon completion of all our other work.

In the event that payments shall not be made when due, such payment shall bear interest at the rate of seven (7%) percent per annum from date due, and contractor shall not be obligated to proceed with installation of additional work so long as payments shall be in default.

All the necessary building or other permits shall be obtained, furnished, and paid for by the undersigned.

The contractor shall not be responsible for strikes, labor troubles, injunctions, or conditions beyond its control.

All work, labor, and materials which shall be installed shall become the property and responsibility of the undersigned.

This contract, when accepted, shall become null and void if the above work shall not be started within days.

The contractor is to furnish one-year warranty on controls and motors, and three (3) months free service from initial "start up" of the heating unit.

This agreement shall not be binding on the contractor unless accepted in writing by an officer of the contractor; and, when so accepted, this contract and all provisions thereof shall inure to the benefit of the heirs, executors, administrators, successors, and assigns of the parties hereto.

The undersigned further agree that, should this contract be terminated for any reason whatsoever before the completion of the work as specified herein, the undersigned agree to pay in full for all labor and materials furnished up to date of such termination at the rate and price hereinabove specified, and, also, for other expenses incurred in procurement of this contract.

Dated: -		(SEAL)
SHELDON HEATING & COOLING, INC.	Owner	,
By		(SEAL)
	Owner	

INTEREST CHARGE ON LATE PAYMENT FOR WORK is very clearly pointed out in contract agreement. Firm also claims right to stop work if bills are not paid when requested.

# **7% Penalty Charge**

HAVING TROUBLE COLLECTING your accounts from general contractors? Bill Cherullo, Sheldon Heating and Cooling, Inc., Hazel Crest, Ill., was, until he rewrote his contract to include a 7 percent interest charge on all past-due bills.

During the first six weeks, 15 builders accepted his terms and signed the new contract for heating and air conditioning work in their housing projects.

Explaining the interest charge

to builders, Mr. Cherullo points out that prompt turnover of products and payment for services are vital to profitable operation of a heating and air conditioning business, and that when customer payments are slow in being cleared, money must be borrowed to meet financial obligations such as payroll, suppliers' bills, state and government taxes, utilities, and other overhead expenses which cannot be set aside.

He goes on to explain that the minimum rate for borrowing money is 5 percent and that he loses an additional 2 percent when he fails to make payments to his suppliers within the cash discount rate period.

### Second Statement Shows 7%

All Sheldon bills are mailed the first of each month; and the 7 percent interest is added to the

This dealer-contractor tacks 7 percent interest onto overdue accounts to cover the 5 percent rate he must pay on loans to maintain his cash reserve, and the 2 percent cash discount he must forfeit to his supplier



OVERDUE ACCOUNTS are brought immediately to the attention of Bill Cherullo (left) by Frank Klein so customer can be billed for cost of maintaining necessary cash reserve

# **Perks Up Collections**

accounts not cleared by the 10th. The followup statement includes the interest charge as part of the total amount due.

#### **Calls for Three Payments**

The contract calls for payment on completion of each of three phases of new house work: 1) gutters, 2) roughing-in and 3) all work specified in the contract.

The contract further stipulates

Notes Big Improvement

clearly stated.

Collections have improved considerably, and only once has work been discontinued on a project. In this case the builder obtained the

that Sheldon Heating and Cooling,

Inc. is not obligated to continue

installation work after a bill be-

comes past due and the firm's in-

tent to enforce the contract is

money within a few days and work was resumed.

Resistance by builders to this agreement has been weak, says Bill Cherullo. "If you show them you're a businessman too, and that you expect them to meet their obligations just as you must, they'll keep their accounts settled. They know they can expect to receive low bids only when dealer-contractors can keep their costs down."

# **Diversified Shop Expands**

. . to commercial heating jobs



OVERHEAD PERIMETER LOOP HEATING SYSTEM WAS ADDED after this fairgrounds arena had been completed. Two furnaces provide 5,250,000 Btuh heating capacity—sufficient for indoor events such as boxing, wrestling, etc.

A DEALER-CONTRACTOR must be tuned constantly to changes in his marketing area and his industry, and keep pace with them by diversifying his operation as much as is practical. He must, in short, be able to offer his market a wide range of services.

Carl Behrnd, president, and Louis K. Albrecht, vice president, Carl Behrnd Inc., Madison, Wistook a good look at their market recently and started an expansion program. Now their work ranges from residential heating and air conditioning to commercial and industrial heating and ventilating, specialty items and production work for local manufacturers.

Their first move in the diversification program was expanding the shop working area. They added a 25 imes 53 ft annex with 10 in. concrete block walls and metal roof deck. Strategically-located plastic "double bubble" skylights admit ample light for close work with few shadows in any part of the working area. Even the wells through the roof are lined with aluminum to reflect daylight into the working area. The plastic skylight has a low heat transfer rate and the roof contains 2 in, of insulation.

They purchased and built new equipment to handle the wider range of work: an oven for handling plastic materials, an 8 ft power press brake, a band saw and several electrically-powered multi-purpose machines. To speed up duct fabrication, equipment is arranged for smooth work flow from the layout tables to the press brake and the lock forming machines. Duct sections are nested to facilitate transportation to the job site where Pittsburgh locks are completed.

### Handles Big Ventilation Job

This expansion soon brought the firm a ventilation job it would have been hard-put to handle under the old setup. The job, just

## Its Market

. . and specialty lines

Analysis of his changing market started this dealer-contractor on an expansion program which opened new doors to profit



LABORATORY ANIMAL CAGES are profitable specialty line for diversified business. This stock product is promoted to general market in pamphlet listing 19 features

completed, was in the new 12 story Chadbourne Hall at the University of Wisconsin.

Following the specifications carefully, the firm held duct transitions to a one-to-seven slope and made offsets in easy sweeps. Large ducts were reinforced with angle iron or standing seams to prevent vibration or "breathing."

### **Dampers Temper Air**

Intakes and discharge openings which are exposed to weather and connected to inside ducts had to be rainproof, louvered and made of rustproof material with ½ in. mesh rustproof screens over the

openings. In some cases 100 percent outside air is brought in to the conditioning units. A control in the supply trunk operates a set of face and bypass dampers. The duct thermostat is set to provide 70 F air to the ventilation system.

All supply and return ducts in the air conditioned dining area were lined with ½ in. glass fiber duct insulation. The supply air control system was interlocked with a separate exhaust system which discharges about 60 percent of the total quantity of supply air to the outside.

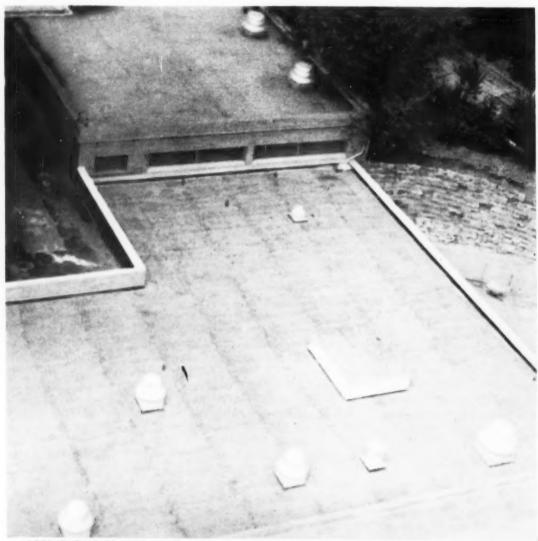
Toilets are vented into an exhaust system connected to power roof ventilators. Stainless steel hoods are profitable specialty products for Carl Behrnd, Inc. A complete set of portable shop tools facilitates fabrication and assembly of hood components at the job site.

Recently, a stainless steel exhaust hood was installed in a large kitchen. The hood is 44 ft long, contains two 3500 cfm blowers and fifteen  $24 \times 20$  in. permanent grease filters. The stainless steel is 18 ga, type 303, with a no. 4 finish. The customer insisted that the hood be strong enough to allow workers to stand on the top of the hood in cleaning the walls and ceilings. So holes were punched through the

DIVERSIFICATION places dealer-contractor in position to take on profitable commercial and industrial heating and ventilation work



PENTHOUSE UNIT for college dormitory handles 100 percent outside air. Company officers check adjustment to provide constant supply of 70 F supply air



ROOF VENTILATORS SERVE COLLEGE KITCHEN AND DINING HALL. Two ventilators at top are for 44 ft stainless steel hood. Ventilators on wing at bottom exhaust 60 percent of the volume of air supplied to dining hall

walls at each side of the building and a 5 in. channel iron was inserted through the walls and cemented into place. Structural tees were fastened to the channel iron beam and to the back wall of the building. These  $2\frac{1}{2} \times 3$  in. tees were placed on 3 ft centers. The structural frame was further reinforced by wall-mounted angle iron supports for the upper and lower back lips and the lower front lip of the hood. Horizontal strips of angle iron which form the front lip were welded together and cemented at each end to the side walls. The front of the hood and its inner surfaces are covered with stainless steel.

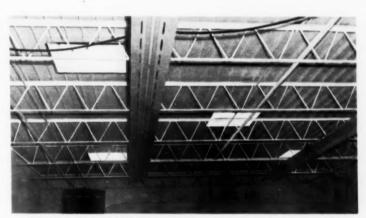
Built-in 2 in. grease troughs at the front and back of the hood are pitched to provide a 3 in. drop to each corner from the center, where a drain hole permits grease to flow into a receptacle,

### Fit Panels Tightly

Extending from the bottom of the hood to the floor along the two sides and across the back are 4 ft panels of 24 ga galvanized steel. To assure tight seams which would not fill with grease, the firm employed a reverse Pittsburgh lock. The lip of each seam was fastened to the wall before the next panel was placed. This arrangement dictated that the paneling be started at one wall and worked down the side, around the back and up the other side, one panel at a time. A decorative strip was fastened over the exposed fastening lip of the last panel. Panels were cross-braked to increase rigidity. All joints were sealed with 50-50 solder. The



WARMING OVEN was designed for new plastics department by Carl Behrnd and Louis K. Albrecht. Firm now fabricates plastic ducts for handling corrosive fumes



DOUBLE BUBBLE SKYLIGHTS for new shop annex reduce heat gain and loss without sacrificing effective light transmission. Skylights are located to minimize shadows in working area

roof ventilating units are en-

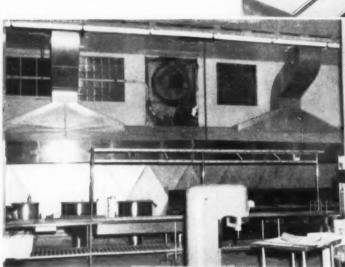
### Install Perimeter Loop

The expanded shop was also able to take on a 5,250,000 Btuh heating job for the county fair-grounds arena—a job which consumed 22,000 lb of galanized metal ductwork. To provide adequate heat for the already-completed building (heating was an afterthought) the engineers elected an overhead perimeter loop duct system, to be fed from

a single supply duct from a furnace room annex.

Warm air is distributed through ceiling diffusers. Return air is routed to the furnace from three floor-level return air intakes spaced along one wall through branch ducts to a return trunk which joins an outside air trunk before entering the furnace.

Specialty work now includes light and heavy gage fabrication. The firm makes body parts for 18 ga black iron golf carts to the manufacturer's specifications, and laboratory animal cages in sev-



DIVERSIFIED SHOP can handle bigger sheet metal fabrication jobs, serve larger market



STAINLESS STEEL HOOD over ranges and steam kettles was fabricated and supported to meet customer requirement for strength to support workmen cleaning walls and ceiling. INTERIOR VIEW (top) shows permanent grease filters, fluorescent lighting arrangement, 2 in. grease troughs and metal wall paneling below hood



FRONT END OF GOLF CART body is inspected by Carl H. Behrnd (right) and Louis K. Albrecht before releasing to the customer



MANUFACTURER TESTS completed golf cart. Manufacturer is J. C. Westmont, one of the inventors and pioneers of a well-known oil burner

eral sizes to fit angle iron frames which accommodate removable stainless steel dropping pans beneath the cages. The cages are suspended from strong tracks under the horizontal supports for the frames, which are mounted on 5 in, ball bearings casters. The animal cages are promoted as a specialty item in a pamphlet listing 19 outstanding construction and sanitation features, which are essential in laboratory environments.

To further enlarge the scope of the company's services, Mr. Behrnd and his partner, Lou Albrecht, designed and built an oven to heat plastic sheets for forming into corrosive fume removal systems. The oven has a galvanized metal cover, 1 in. of glass fiber insulation and a lining of 0.064 aluminum. It contains one aluminum shelf. A small blower mounted on the side circulates air through the electrical-

ly heated oven, which accommodates plastic sheets 3 ft wide and 5 ft long.

The firm, which started in the residential heating and sheet metal business with two men and one truck in 1944, now employs 11 journeymen, operates two cars and three trucks and has an annual business volume of about \$200,000—dramatic evidence of the wisdom in the management's decision to diversify.

# SMACNA Sheet Metal Duct Manual Standardizes Special Connections, Shapes

Part two of this important new contractor tool details system components to eliminate uncertainty and minimize errors in fabrication of often-used duct system components and accessories

By James H. Stiggleman Chief Mechanical Engineer Childs & Smith Architects and Engineers LAST MONTH'S article describing the Sheet Metal and Air Conditioning Contractors National Association's new Duct Manual and Sheet Metal Construction for Ventilating and Air Conditioning Systems explained that the manual is divided into three basic parts. This article will concern itself with the second part, plates 15 through 58, covering fabrication of special sheet metal connections and shapes.

In general, these plates detail hangers, elbows, branches, tees, dampers, access doors, fire dampers, goosenecks and range hoods, belt guards, fan housings, hoods, and many others.

Every engineer has probably at one time required the use of most of these details—more than likely, all of them. Some are necessary on every ventilation system. These details are handled in many ways by different design engineers. Some cover them in specifications, others make special details to cover each specific job, others have their own file of standard details which they either trace or apply to the job by a reproduction process, and still others use a combination of all three. Unfortunately, there are also times, due to the urgency and speed required to finish a project or because a job is rather small, when these details are hardly covered at all.

There are problems connected with all the above methods. Unless an engineer has a good file of standard details, he can waste a lot of time working these problems out and drawing them. Even with standard details, unless the originals are reproduced photographically, it is time consuming to retrace them. It is also possible for a draftsman to make a mistake in retracing. These mistakes are often not caught, mainly because they were traced from standards

# FIG. A - ANGLE TRAPEZE TYPE HANGER WITH ROD SUPPORTS TO STEEL BEAM FOR HANGING SINGLE DUCTS. (Recommended for large size ducts.)

The bottom of rod is threaded, inserted in a hole in the angle and a nut is applied to hold in place.

The top of rod is welded to a "C" clamp which is screwed to the flange of the beam.

A  $1/8 \times 1$  in. safety bar is welded to the "C" clamp, the end of which is hammered over the opposite flange of the beam to prevent the "C" clamp from slipping off. Note Detail.

Size of rod, angle and spacing will vary with the duct size.

# FIG. B - ANGLE TRAPEZE TYPE HANGER WITH ANGLE SUPPORTS TO WOOD JOIST

(Recommended for large size ducts.)

The angle support is screwed into the wood joist and bolted or welded to shelf angle.

Size of angles and spacing will vary with the duct size.

# FIG. C - ANGLE TRAPEZE TYPE HANGER WITH ROD SUPPORT TO CONCRETE BEAM.

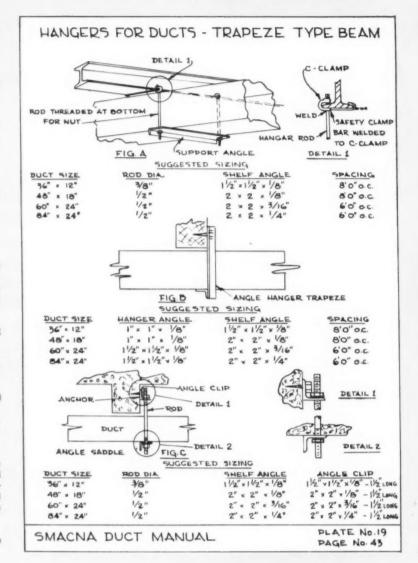
(Recommended for large size ducts.)

The bottom of the rod is threaded, inserted in a hole in the angle and a nut applied to hold in place.

An angle clip is installed on the side of the beam with an approved type anchor bolt or screw. The horizontal leg of the angle is drilled to receive the top of the rod which is threaded for a nut.

Size of rod and angle will vary with the duct size.

# PLATE NO. 19 HANGERS FOR DUCTS-TRAPEZE TYPE - BEAM



which were not very carefully worked out in the first place.

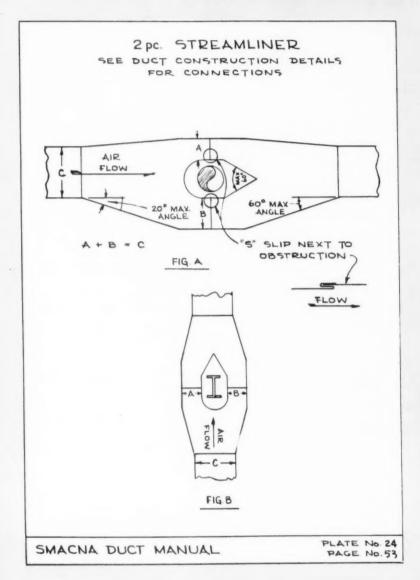
Using the duct manual also has the advantage that these details are acceptable to the contractors who are actually going to install the system. This fact alone should do away with the annoyances of being asked to change details on the job because of their not being standard in the industry.

It is not possible in this arti-

cle to describe every plate from 15 through 58. However, a few of them warrant brief discussion. Each plate is accompanied by a complete detailed description on its facing page. There are, for instance, five plates covering hangers for ducts. These include ducts supported from walls and ceilings, horizontal and vertical ducts, ducts through floors, different sizes of ducts, and methods of hanging ducts from various constructions.

Plate 19, entitled Hangers for Ducts—Trapeze Type Beam, is reproduced above. The illustration and its accompanying descriptive material are so clear that they require no further explanation.

Plate 24, Two Piece Streamliner, is illustrated because it is unusual for an engineer to detail or even describe such a construction in much detail in his specifications. Many times this condition is not even an-



Where it is impossible to offset a duct around an obstruction such as a steam line, plumbing line or small beam, the obstruction must encompassed with a 2-piece "Streamliner" as shown on Plate No. 24.

The area of the duct must not be decreased. Dimension must equal the sum of dimension A & B.

The air entering side should taper on a maximum angle of 20 degrees and the leaving side should taper on a 60 degree maximum angle.

The Streamliner around the obstruction should be rounded on air entering side and tapered to a 60 degree point on the air leaving side.

The Streamliner is usually installed with an S Slip on the inside next to the obstruction for easy assembly.

The ends of a Streamliner are connected to the Tapers with Pittsburgh Locks.

The ends of the Tapers are connected to one duct with any of the standard joints normally used.

#### FIG. A - NON-SYMMETRICAL

As shown in Fig. A, the sides of a Streamliner need not be symetrical. It is important only that A plus B = C as noted above.

#### FIG. B - SYMMETRICAL

Fig. B illustrates a Streamliner design which uses perfectly symmetrical sides for overall appearance and where A = B. This design is frequently used for vertical exposed ducts which must encompass a beam.

ticipated, but occurs due to unforeseen interferences on the project and must be treated as a job condition. Through the manual, this problem can now be handled using good practice with no misunderstandings as to how it should be solved.

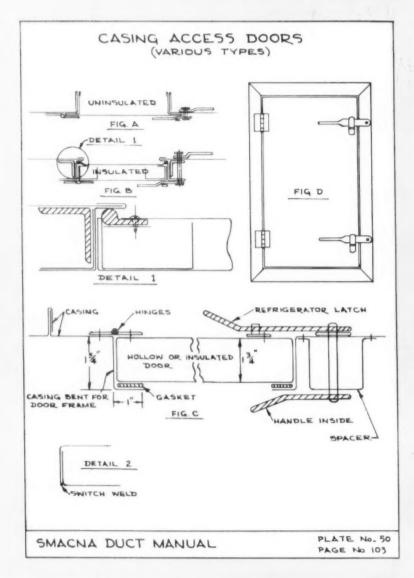
Plates 34 and 35 illustrate fire dampers and automatic fire doors. These are reproduced from pamphlet No. 90A of the National Fire Protection Association. These plates are included because pamphlet 90A is generally referred to in specifications but is not always at everyone's fingertips. Having these plates included in the manual should save time.

Another detail that sometimes is not given proper emphasis is the construction of access doors. Basically, there are only two types: insulated and uninsulated. The manual has two plates covering these. Another plate details inspection plates and test holes in ducts.

Plate No. 50, illustrated on the next page, shows construction details for both insulated and uninsulated doors. Indicated are gasketing and latches to provide access from both sides of door. Doors would be of the size specified by the engineer and optional features, such as glass inspection windows, can be added by specification. The sheet metal gage for the door will be selected by the

#### PLATE NO. 50

### ACCESS DOORS FOR CASINGS



### FIG. A - CONSTRUCTION OF AN UNINSU-

The casing sheet is flanged inward and hemmed back to form the frame. The door is formed as shown to lap over the casing.

Hinges are installed on one side with latches on the other side, riveted or bolted in place. The gasket is installed on the door where door laps over the casing.

### FIG. B - CONSTRUCTION OF INSULATED

The frame is formed separately and is locked to the casing as shown in "Detail 1". An angle is installed back of the frame, spot welded or riveted to the casing sheet, for reinforcing.

The door is made either of metal, filled with insulation, or it may be a wood core covered with metal.

The gasket is installed on the door as shown in "Detail 1".

Hinges are installed on one side with latches on the other side.

### FIG. C - CONSTRUCTION OF INSULATED

The casing is flanged inward with a stop formed on inner edge to receive door. The gasket is installed on this stop.

The door is made of metal as per "Detail 2" and filled with insulation or it may have a wood core, covered with metal.

Hinges are installed on one side with latches on the other side.

#### FIG. D - ELEVATION OF TYPICAL ACCESS DOOR SHOWING LOCATION OF HINGES AND LATCHES.

Note: Latches should be of the wedge type to close doors tightly and with operating handles on both inside and outside of casings.

Hinges should have non corrosive pins.

engineer, based on the dimensions of the door and static pressure of the system.

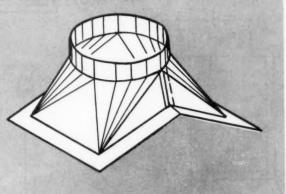
It is not possible in this article to describe all of the details shown in the manual. However, this brief discussion should give some indication of its great value. The manual must be used with judgment and discretion. It is not meant to be a substitute for brains. It is, in fact, a very useful and helpful tool; however, an engineer cannot merely write in his specifications, "follow the manual." He must choose what he wants from the manual and modify, in some cases, those details to suit his particular conditions.

A future article will describe the third and last part of the manual, which is a suggested specification. This specification shows how to tie the manual's various details into the plans and specifications for a ventilating system so that full use and all the advantages of this tool can be realized.

### HUGH REID'S SHEET METAL PATTERN

### Can you develop this pattern in 30 minutes?

Here's a new and accurate approach to the development of sheet metal patterns that will cut costly layout time. The method applied to this month's fitting can be used as a guide to develop related patterns and solve other problems encountered at the layout beach



# Simplified Method Cuts Layout Time For Roof Peak Ventilator Base

Close scrutiny of the pattern problem shows up symmetrical areas where duplication of patterns can be avoided

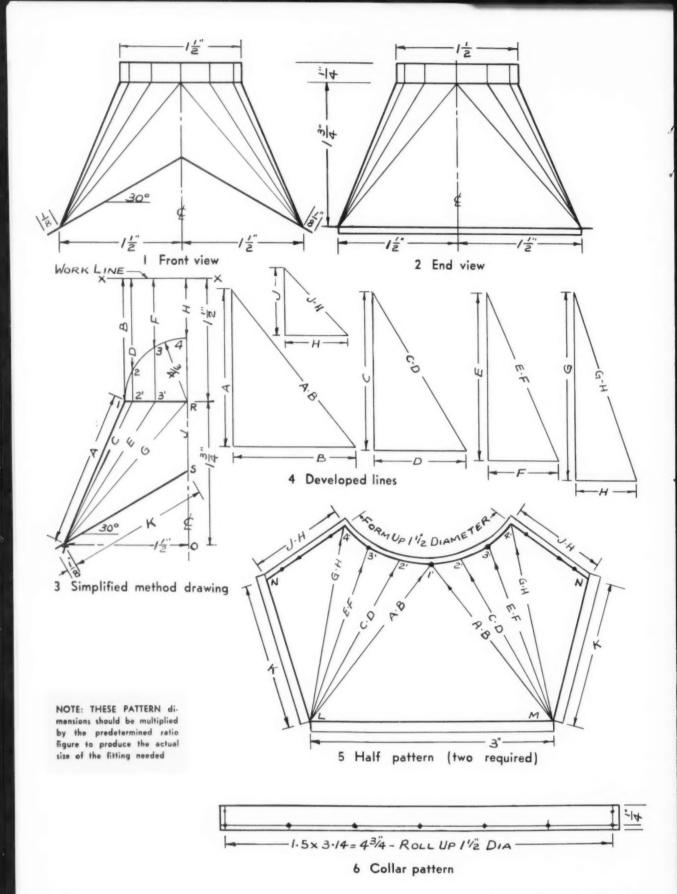
Practical sheet metal pattern layout calls for doing each job with the fewest possible views and lines. The pattern draftsman should scrutinize each pattern problem thoroughly to determine the best, most practical solution. In the pattern layout of the roof peak ventilator base, note in the front and end view drawings (Figs. 1 and 2) that the fitting is

symmetrical about the vertical center line. This analysis suggests that all true length lines can be developed from a half end view drawing and a plane line drawn above the diameter line at a distance equal to half the given width of the base of the fitting (1½ in.), as shown on the end view drawing. In this example, a separate triangle is drawn in developing

each true length line for clarity; however, in practical shop work, all true length lines can be developed on a common right angle triangle.

The pattern layout for this fitting should not take more than 30 minutes.

Given the front view and end view of a roof peak ventilator base, the following is a step-by-step anal-



### How to develop a

### Roof peak ventilator base

... via the simplified method

ysis of the pattern problem solu-

### Simplified Method, Fig. 3-

a) Draw a vertical center line and establish point O at the bottom. From this point draw a line to the left and perpendicular to the center line. Measure the given 1½ in. (Fig. 1) and locate point T. From point T, draw a line at 30 deg (roof slope for this example) to line TO to intersect the center line. Identify the intersection as point S.

b) From point O measure up the given 13/4 in. height (Fig. 1) and establish point R. From point R draw a line to the left and perpendicular to the center line. Measure the given 3/4 in. radius and establish point 1. Draw line 1-T. Identify this line as distance A.

c) With point R as center and radius 3/4 in., draw a quarter circle above line 1-R until it intersects the center line. Divide the quarter circle into three equal spaces and number the points as 2, 3 and 4. From Fig. 2, transfer the given 11/2 in. half width to the center line (Fig. 3) above point R. Label the point X. Draw the work line XX parallel to line 1-R.

d) Through points 1, 2, 3 and 4 draw lines parallel to the center line and intersecting lines 1-R and XX. Identify the distances between points 1, 2, 3 and 4 and line XX with the letters B, D, F and H.

Label the intersections of the parallel lines and line 1-R as points 2' and 3'.

e) Draw lines from point T on the base line to points 2', 3' and R. Label these lines C, E and G. Identify line TS as distance K and line SR as distance I.

### Half Pattern, Fig. 5-

a) Draw a 3 in, horizontal line and label the extremity points L and M. Draw a right angle (Fig. 4). Transfer length A from Fig. 3 to the vertical leg and distance B to the horizontal leg. The hypotenuse line AB is the developed line. With point L (Fig. 5) as center and developed line AB as radius, draw an arc above and to the right of point L. With point M as center and the same radius, cut the arc from point L and identify the point as 1'.

b) Transfer line C from Fig. 3 to the vertical leg of a right angle (Fig. 4) and length D to the horizontal leg. The hypotenuse line CD is the developed line. With point L (Fig. 5) as center and radius CD, draw an arc to the left of point 1'. With point M as center and radius CD, draw an arc to the right of point 1'. With arc length 1-2 on the quarter circle (Fig. 3) as radius and point 1' (Fig. 5) as center, cut both arcs C-D and establish both points 2'.

c) From Fig. 3 transfer line E to the vertical leg of a right angle and distance F to the horizontal

leg. The hypotenuse line EF is the developed line. With point L (Fig. 5) as center and hypotenuse EF as radius, draw an arc to the left of point 2'. With point M as center and radius EF, draw an arc to the right of point 2'. Set a compass at length 2-3 on the quarter circle (Fig. 3) and with points 2' (Fig. 5) as centers, cut arcs EF and label the points as 3'.

d) Draw a right angle (Fig. 4). From Fig. 3 transfer line G to the vertical leg and the distance H to the horizontal leg. The hypotenuse line GH is the developed line. With point L (Fig. 5) as center and radius GH, draw a line to the left of point 3'. With point M as center and radius GH, draw an arc to the right of point 3'. With equal spacing 3-4 on the quarter circle (Fig. 3) as radius and points 3' (Fig. 5) as centers, cut arcs GH and label the points 4'.

e) Transfer line J from Fig. 3 to the vertical leg of a right angle and distance H to the horizontal leg. The hypotenuse line JH is the developed line. With both points 4' (Fig. 5) as centers and radius JH, draw arcs below and to the left and to the right of both points 4'. Set a compass at line length K (Fig. 3) and with points L and M (Fig. 5) as centers, cut the arcs JH and designate the points as N.

f) Through the developed lines draw the pattern outline and work lines. From lines NL, LM and MN, measure out the given ½ in. flange length and draw the flange outline

### Collar Pattern, Fig. 6-

a) Calculate the collar circumference by multiplying the given 1½ in. diameter by the constant 3.14, which is 4¾ in.

b) Draw a rectangle equal to the given ¼ in. collar length by the 4¾ in. circumference.

Add allowances for seams and joints, lay out the rivet holes and mark the patterns for fabrication.

# NWAHACA Steers Industry To Better Profits Via Bigger Volumes

Emphasis was on professional salesmanship at the association's annual convention at St. Louis



HOW TO BUILD A PROFITABLE SALE was told by panelists (1 to r): William L. Dulle, E. E. Souther Iron Co.; J. P. Field, Williamson Co. (moderator); and Gary Baker, National Warm Air Heating and Air Conditioning Association

"BUILDING SALES VOLUMES as a way to better profits" was the theme of the 46th annual convention of the National Warm Air Heating and Air Conditioning Association last month in St. Louis. Paths to bigger sales volumes at the manufacturer, wholesaler and dealer-contractor levels were charted by speakers skilled in their specialties, many from within the warm air heating and air

conditioning industry and others from the banking, legal and statistical fields. In all, 18 speakers presented their ideas on the theme subject. Other speakers reported on the association's marketing, research and educational activities.

Describing the teamwork required to build sales volumes and better profits, J. P. Field, vice president of The Williamson Co., said the salesman's presentation is

actually the product of all the other factors involved in locating and showing the prospect how to buy the type of heating system he needs and why its cost may be more than anticipated. "Can you imagine anyone trying to run a successful, profitable business without overall planning on sales as a whole, plus individual planning for each prospect?" Mr. Field asked.



### NWAHACA Convention Report

NEW PRESIDENT Harry C. Gurney (left) receives congratulations from retiring president Tom Byrd

"Five important points must be kept in mind in organizing a selling program:

- 1) A business cannot be bigger or more successful than its sales.
- A definite amount of time and effort must be regularly devoted to sales work.
- 3) More sales cannot be made than there are prospects.
- 4) Every lead should be promptly followed up.
- 5) Never let up on a prospect as long as he is a prospect.

"Keep in mind that the difference between a suspect and a prospect is interest. Part of a dealer-contractor's job is to create interest.

### Where Are Prospects?

"Where to locate prospects? Some of the sources are:

- 1) Advertising and sales promotion.
  - 2) Residential building permits.
- Real estate agents and brokers.
- 4) General contractors and builders.
  - 5) Previous customers.
  - 6) Newcomers to a community.
  - 7) Firms you deal with.
- Door knob hangers or circulars.
  - 9) Telephone directory listings.10) Cold canvass calls, etc.
- "A recent survey of 450 dealercontractors rated the sources in this order of importance:

### **Personal Contact Best Source**

"First came personal contact door-to-door canvass either in person or by telephone. Second, tips from satisfied customers, friends and associates. Third, inquiries from newspaper ads. Fourth, inquiries via telephone listing. Fifth, direct mail. Sixth, radio and television.

"Professional selling is an important service to the customer. He is accustomed to paying for that service.

"The ordinary salesman basically sells price. The professional sells service and satisfaction.

"Today's buyer is willing to pay for quality, but only if he's convinced he is getting that quality that which will give him complete comfort. If he is not confident that a new warm air system will offer high quality comfort and satisfaction, he will do one of three things:

- Buy another type of heating system.
- Stick with his present system and spend his money elsewhere.
  - 3) Demand a lower price.

#### **How to Convince a Prospect**

"The professional salesman must convince prospects that complete comfort can be had. He can accomplish this through:

- Complete knowledge of the products he sells.
- Understanding of the prospect's needs.
- Interpretation of product performance in terms of the individual need.
- 4) Regard for the other fellow.

"This 'service selling' results in more sales volume and better profits to the dealer-contractor."

Much of the success of large sales volumes and adequate profit is due to active promotion, training and management of installation and overhead cost. These subjects were covered by other panels.



### H. C. Gurney New President

New slate of officers elected: President, Harry C. Gurney, Janitrol Heating and Air Conditioning Div., Midland-Ross Corp.; first vice president, Don Winegardner, The Majestic Co., Inc.; second vice president, Harold P. Mueller Jr., Mueller Climatrol Div., Worthington Corp. Managing Director James M. Martin was named secretary-treasurer. Reelected to the board of trustees for a second two year term were: Charles H. Franke, American Furnace Co.; Gordon Rieley, Lennox Industries, Inc.; and Roland R. Taylor, Fraser & Johnston Co. Four new trustees elected are Paul M. Augenstein, Airtemp Div., Chrysler Corp.; Ronald N. Campbell, The C. A. Olsen Mfg. Co.; Robert L. Leigh, Air Control Products, Inc.; and Kent L. Wilson, Minneapolis-Honeywell Regulator Co.

Members of the board of trustees with one year to serve are: Harold W. Mutz, The Peerless Corp.; Wright C. Percival, Green Colonial, Inc.; Homer F. Brundage, The Brundage Co.; Eugene J. Cullen, Inland Steel Products Co.; and H. F. Randolph, International Heater Co.

As immediate past president of the association, Tom Byrd becomes an ex-officio member of the board of trustees.

### Wholesalers See Busy Decade

ALMOST EVERY FORECAST for the 1960's sees a surge in business activity and many changes in marketing methods and consumer preferences. The ability of warm air heating and air conditioning wholesalers to solve the inevitable problems which accompany such changes will largely determine the degree of financial success enjoved by many individuals and many businesses during this rapid-growth period. To help members of the Northamerican Heating & Airconditioning Wholesalers' association anticipate and meet the problems they are likely to encounter, "The Challenge of the '60's" was selected as the theme for the 13th annual convention in St. Louis last month. Practical workshop sessions on electric heating and modern management techniques attacked current and future problems from the wholesaler level.

### **Elect Squire President**

Officers elected to serve one year are: president, Harold W. Squire, The Tiffin Art Metal Co., Tiffin, O.; president-elect, J. Orville Garrett, Loman-Garrett Supply Co., Greensboro, N.C.; vice president, R. B. Hesling, Climate Distributing Co., Van Nuys, Calif.; secretary, David M. Brousson, Century Sales, Ltd., Hamilton, Ont., Canada; treasurer, Robert H. Swart, Heating & Cooling Wholesalers, Inc., Grand Rapids, Mich.

#### Name 12 District Trustees

Serving on the board of trustees are: Region 1, George B. Sprick, Modern Equipment Corp., . . . in the 1960's, sparked by a business surge, changes in marketing and consumer preferences, and big strides in electric heating, which can be shared by the warm air heating and air conditioning industry

New Haven, Conn.; Region 2. Fred C. Baumbach, Climate Equipment & Supply Co., Inc., Rochester, N.Y.: Region 3, Eugene Brown, Carolina Htg. & Appliance Co., Charlotte, N.C.; Region 1, C. Blaine Lytle, The W. T. Andrew Co., Detroit: Region 5. Joe M. David. The Lewie David Co., Sullivan, Ill.; Region 6, William H. Brauer, Brauer Supply Co., St. Louis: Region 7. Vince C. Shields Jr., Hinkle Supply Co., Inc., Birmingham; Region 8, L. E. Minns, L. E. Minns & Co., Inc., Houston: Region 9. Malcolm B. Nicholson. Empire Gas & Electric Co., Denver: Region 10, Emery O. Lillard. Lillard Co., Walnut Creek. Calif.; Region 11, B. H. Browning. Continue-Flo Heating Products, Ltd., Hamilton, Ont., Canada; Region 12. Don M. Keefer, McPherson Furnace & Supply Co., Portland, Ore.

### **Study Electric Heat Trends**

The influence of electric home heating on the market and its applications to the air distribution system were scrutinized in a workshop session led by panelists: Len Troeller. Brauer Supply Co. (moderator); S. S. Sansbury, Union Electric Co.; Robert Barr, Jet-Heet, Inc.; Richard Cullom,

manufacturer's agent for Gerwin Industries; R. G. Nelson, Northern Illinois Gas Co.; O. U. Mutz. Peerless Corp.; and Frank Green, Heating Wholesalers Co. They described various methods of using electricity to heat homes.

### 'Electric Heating Is Here'

They analyzed the advantages and disadvantages, the sales appeals and limitations of each. And they concluded, as did many other wholesaler members, that electric heat is here, it is growing and will continue to do so; that electric heating promotion by manufacturers who are pushing direct resistance heating will build consumer interest in electricity for heating their homes; but that ultimately the central air distribution system will stand out as the most satisfactory method of obtaining and maintaining true winter comfort in the home. Wholesalers were advised to adjust their operations to take on electric heating equipment which their customers are likely to request-equipment that is compatible with the air distribution arrangements: electric furnaces for use with duct systems, electric heating units that can be located in central air distribution ducts; electric resistance



NEW OFFICERS AND TRUSTEES AND THEIR WIVES are introduced to convention delegates. Seated (I to r): Eugene Brown, Mr. and Mrs. Fred C. Baumbach, Mr. and Mrs. George B. Sprick, Mr. and Mrs. Oscar P. Brauer, Mr. & Mrs. Harold Squire, Mr. & Mrs. J. Orville Garrett, Mr. & Mrs. R. B. Hesling, Robert H. Swart. Standing (I to r): W. R. Bull, Mr. & Mrs. C. Blaine Lytle, Mr. & Mrs. Joe M. David, Mr. and Mrs. L. E. Minns, B. H. Browning, Malcolm B. Nicholson, Mr. and Mrs. Lee J. Haines, Emery O. Lillard, Vince G. Shields. Not shown: David M. Brousson, Don M. Keefer, and William H. Brauer

# ON THE SCENE:



Northamerican Heating and Airconditioning Wholesalers Association, 13th annual convention, St. Louis . . . "The Challenge of the '60's"



DIRECTING THE ASSOCIATION in 1960 will be Harold W. Squire, president (left) and W. R. Bull, executive director

elements which can be inserted in individual branch ducts or behind individual registers or diffusers, and heat pumps.

#### See Heavier Promotion

The panelists pointed out that most electric utilities are interested in balancing their winter load demands to equal the summer loads created by central air conditioning. And as air conditioning grows so will the number of electric utilities which promote electric current for heating and the scope of their promotions will expand.

Because much of the higher cost associated with electric heating can be alleviated by proper preparation of the building for electric heating, the panel recommended that this prerequisite be fulfilled before any attempt is made to install equipment using electricity as a fuel in a customer's home or place of business.



MODERN MANAGEMENT METHODS for wholesalers were recommended by panel (I to r): Harvey W. Protzel, Ernst & Ernst; Fred Karches, Fred Karches & Associates; Harold W. Squire, Tiffin Art Metal Co., moderator; Dale Houghton, Klein Institute for Aptitude Testing; James Chevalier, Minneapolis-Honeywell Regulator Co.; and George Nafe, Century Electric Co.



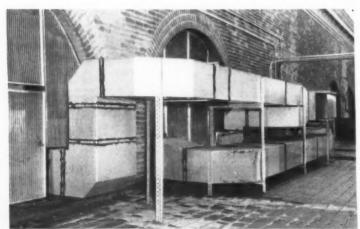
TRENDS IN ELECTRICAL HEATING and their effect on the wholesaler were analyzed by workshop panel (I to r): Len Troeller, moderator; Robert Barr; R. G. Nelson; S. S. Sansbury; Richard Cullom; O. U. Mutz; and Frank Green

# Packaged Cooling Units Save Space and Money for City Hall



ORDERLY ARRANGEMENT OF PACKAGED EQUIPMENT and ductwork on roof provides adequate space for cooling towers for water cooled equipment serving first and second floors

Space limitations which ruled out a central cooling system turned out to be a blessing in disguise when this dealer-contractor put unused space to work in his 5-zone arrangement



SUPPLY AND RETURN TRUNKS for packaged equipment on roof were covered with galvanized metal and sealed at joints to prevent moisture penetration. Ducts are supported by perforated channels and angle iron stanchions

As BUILDING OWNERS and city officials become more conscious of the benefits of summer air conditioning, the number of installations in existing commercial and public buildings grows. Experience replaces trial and error and better jobs result. More satisfactory installations create more demand...and so it goes.

Improvements are born out of limitations. For example, dealer-contractors often find that they can't install a large central system for an entire building because space isn't available for the mechanical equipment and the large ducts required. In seeking an alternative, they find that individual packaged summer air conditioning equipment designed to handle the building requirements on a zone basis is a more-than-satisfactory solution to cost as well as space problems.

Sheet metal and air conditioning dealer-contractor William J. O'Neill chose this zone arrangement to air condition the city side of the City-County building in Wilmington, Del. He divided the three-story structure into five zones and selected equipment to meet the specific requirements of each zone. He found the ideal location for outdoor equipment on a roof section surrounded by a high, ornamental parapet.

### **Use Both Cooling Media**

Mr. O'Neill chose packaged water cooled equipment and cooling towers for the first and second floors and air cooled packaged equipment to serve the third floor. City engineers tested and approved the concealed roof for installation of the air cooled equipment and the cooling towers.

The largest water cooled units have 15 ton capacities. Those which serve the first floor are installed in unused closets. Each unit has its own cooling tower. Second floor units are installed in corners of general office areas and other out-of-the way locations. These



MAYOR EUGENE LAMMOT (right) shares enthusiasm for newfound comfort with employee in city auditor's office as they examine air conditioning equipment

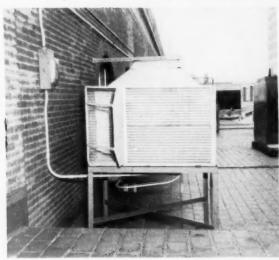
units are also piped to individual cooling towers.

Trunk lines for the air cooled units are also on the roof. The ducts are well insulated and covered with galvanized sheet metal. The trunk lines run through large windows and other convenient wall openings to branch ducts within the conditioned areas or in spaces above ceilings. Return air ducts are also on the roof and, like



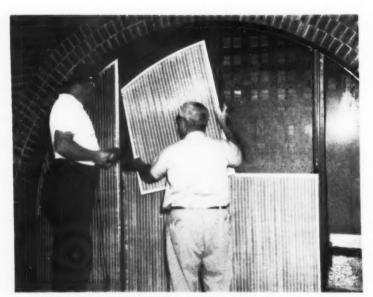
LIQUID AND SUCTION LINES for remote condensing unit are supported and protected by 4 in. perforated light gage channels fastened to masonry walls and supported at the condensing unit

CONDENSER HAS EXTRA SHEET METAL BAFFLE (left side) installed by dealer-contractor to protect against short-circuiting of air between condenser discharge and intake





HIGH PARAPET WALLS around roof of municipal building provide architectural protection for cooling towers on roof, and maintain original silhouette from below



SUN-REFLECTING METAL SCREENS were fabricated in shop and installed on all large glass areas which are exposed to heavy sun load

the supply ducts, leave the building through natural wall openings. This opportunity for saving space was the primary reason for selecting air cooled systems for the top floor.

### **Suggests Dropping Ceilings**

Noting that the ceilings were 12 ft high, Mr. O'Neill recognized a chance to save money and space by installing dropped acoustical ceilings throughout the building to conceal the ducts. This proposal developed into a solution of another space problem. Mr. O'Neill and the building superintendent, David A. Riblett, discovered several corridors which could be eliminated without complications by removing existing walls and in-

corporating the space into adjoining office areas. This also reduced the number of openings needed to admit supply and return ducts to the conditioned areas.

Assured of approval to locate ductwork above dropped ceilings, Mr. O'Neill designed and fabricated the supply and return grilles and plenum boxes according to the sizes of the ceiling openings.

Supply trunks for the roofmounted air cooled packaged units were fabricated from 2 in. rigid insulation material, then covered with galvanized duct sections joined with standing seams on the tops and bottoms and drive slip seams on the sides. All seams were sealed with mastic roofing cement. Ducts are supported by perforated angle and channel iron.

Makeup air is taken into the return system through a scoop arrangement at the end of the return air duct at the conditioning unit. A damper in the scoop regulates the quantity of outside air admitted into the system. The damper box opening is covered with ½ in. mesh screen to keep birds and large insects out of the unit.

#### **Reflecting Screens Cut Load**

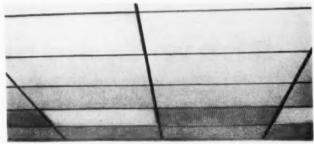
Supply and return ducts to and from the units installed on the roof enter and leave through sections of courtroom windows. These windows were covered with sun-reflecting metal screens to keep down the heat gain through the glass. The cost of the screens was more than offset by the savings they effected in equipment capacities and operating costs. The screens were installed in two sections to permit opening the lower halves of the windows for cross ventilation in the spring and fall.

Branch ducts supplying air to office areas were installed above the false ceilings and terminate in distribution boxes designed to fit the openings in the acoustical ceilings. Conditioned air is introduced through rows of openings in

Supply and return openings fit into attractive ceiling pattern



SHOP-FABRICATED supply and return boxes provide draft-free air distribution in office areas



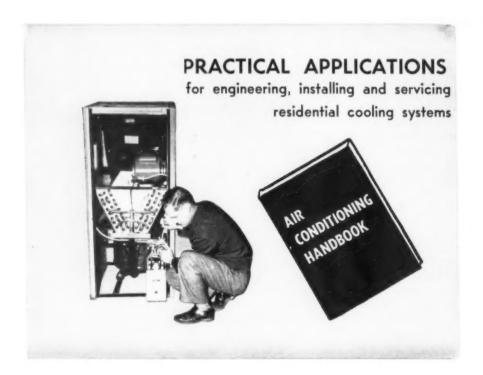
SUPPLY AND RETURN openings in ceiling are compatible with new acoustical ceiling design

the ceilings near the outer and inner walls. Return openings alternate with supply openings and ceiling panels the entire length of the rooms. This arrangement provides a well-designed distribution system and presents a pleasing appearance. Sheet metal boxes were fabricated in the shop from 22 ga galvanized sheet metal, to fit in the same space as one insulated ceiling panel. Box faces are standard ornamentally-perforated sheets trimmed to the required dimensions.

Cooling towers ranging in sizes to 15 tons remove heat from con-

densing units on the first and second floors. Suspended ceilings and ornamental supply and return openings are also employed on these two floors.

Wilmington Mayor E u g e n e Lammot congratulated Mr. O'Neill for his cooperation in designing and installing equipment to keep costs within the municipal budget. Delighted with the system performance, he said: "Air conditioning of the city building is money well spent. Employees are prompt in reporting for work and they leave with smiles on their faces."



## **Show Builders How To Control Heat Gain**

Your expert advice to homeowners, general contractors and architects about the effects of construction features on the cooling load will simplify their problems and pay off in air conditioning sales

By S. W. Reid

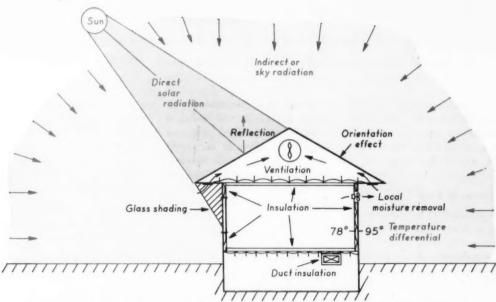
Air Conditioning Engineer

Gilbert Associates, Inc.

LAST MONTH we discussed the know-how an air conditioning dealer-contractor needs to produce his major product, the air conditioning system. We emphasized that the special knowledge he possesses can be put to use for his ultimate benefit when it is offered as advice to homeowners, builders and architects — but only if his recommendations are based on a knowledge of engineering principles plus practical experience in applying them. These qualifications, plus a sincere desire and effort to satisfy customers, create the climate in which reputation can grow.

This month we shall examine in more detail some of the aspects of building construction which are of interest to both the builder and the air conditioning dealer-contractor. Specifically, we refer to those factors of construction that affect the heat gain of a house.

Suppose we start at the roof and work down, since the roof load may represent as much as onethird of the total house heat gain. During the cooling season the roof acts as a barrier to heat from three sources: direct solar radiation; in-



NATURAL AND STRUCTURAL FACTORS affecting heat gain in house and methods of controlling their effects should be explained to builder, owner and architect to make the cooling job easier

direct solar radiation (which is diffused by and re-radiated from elements in the atmosphere); and outside ambient air (which is at a temperature above that in the conditioned space).

Direct solar radiation is direct sunlight. This energy passes through space at the rate of 420 Btuh per sq ft of surface perpendicular to the rays. For example, any surface on a rocket in space which is perpendicular to the sun would receive this amount of heat. The full energy of solar radiation never reaches the surface of the earth, for in passing through the earth's atmosphere, some of it is scattered by the air, moisture, smoke and dust and some of it is absorbed by water vapor, ozone and carbon dioxide. It has been determined (as reported in the ASHRAE Guide) that under the most favorable conditions the maximum total radiant energy that could be received at sea level by 1 sq ft of surface perpendicular to the sun is about 324 Btuh. This represents 289 Btuh in direct solar radiation and 35 Btuh in diffused radiation from the sky. Actual values of direct radiation vary downward from the above figure, according to the amount of impurities in the atmosphere. Related values of indirect radiation vary upward due to increased diffusion and scattering of the rays by the dust, dirt and gases.

The amount of direct radiation received by a square foot of roof depends on its angle to the sun's rays. Thus, building orientation affects this heat component. A roof pitched toward the north will receive very little, if any, direct sunlight. However, it will receive full sky radiation.

#### **How Much Heat Gets in?**

For the cooling load, we are not as much interested in how much radiation a roof receives as we are in how much of what it does receive is absorbed, converted into heat and eventually transmitted to the air inside the house. For instance, suppose the full maximum radiation of 324 Btuh per sq ft fell on a certain roof. If the roof were smooth and painted white, about 68 percent of this energy would be reflected back into the air. This is about as high a value of reflectivity as is attainable and would be used only with considerable caution since any dirt accumulation, weathering, etc. which would diminish the reflective quality of the surface would increase the heat flow into the building. White asbestos shingles have a reflective value of about 55 percent. The rougher surface of white asphalt shingles reflects only about 35 percent of the solar energy it receives. Even a dark or black roof will reflect some radiation -perhaps 5 percent. The reflective properties of most roofing surface materials and paints are obtainable from the manufacturers and are generally listed in the descriptive literature.

For the residential roof, proper orientation and careful choice of surface with respect to reflectivity are the only practical means for minimizing the radiant heat components. Commercial or industrial roofs, however, can be sprayed or "Modern home designs pose many air distribution problems which can be solved only by close cooperation with the building designer"

flooded. Both measures keep the outside surface of the roof cooler than it would otherwise be. Properly applied, water can reduce roof heat gain 70 to 80 percent.

#### Stop Heat in Roof

Having done all we can to keep radiation from being absorbed by the residential roof, we can next turn our attention to the problem of keeping the heat which does penetrate the roof from entering the conditioned space. (This heat comprises not only the radiant energy which has been absorbed, but also the heat flow induced by the outside-inside temperature difference. These two values are entirely independent and are usually determined by separate calculations.)

Fortunately, the peaks of heat flow due to solar energy and those caused by temperature difference do not occur at the same time. Due to the time lag, late afternoon solar peaks may never become part of the cooling load, if outside temperatures fall fast enough to reverse the process and cause an outward rather than inward flow of heat.

#### Insulate and Ventilate

Heat which does flow down through the roof can be kept from the conditioned space by: 1) applying insulation, and 2) providing ventilation. As we have discovered, the transfer of heat through a square foot of roof is a function of both the heat transfer property of the materials in the flow path and the indoor-outdoor temperature difference. Insulation adds resistance to the heat flow path, and ventilation reduces the temperature differential. If possible, both measures should be used.

An air space should always be provided between the insulation and the roof. Usually, it is applied against the ceiling of the conditioned room below. Four inches of mineral wool between ceiling joists can reduce the heat transfer factor to 12 percent of its original value.

In an unventilated space between the insulation and the roof the temperature can rise as high as 150 F. The difference in temperature between this space and that in the conditioned space is the temperature difference, which causes heat to flow through the insulation. Ventilation can reduce the difference considerably, but cannot be left to chance. Natural ventilation through the ordinary gable louver offers little help in reducing cooling loads, although it does serve its purpose of controlling attic moisture and vapor. Forced ventilation which effects an air change every 10 minutes or less can effectively reduce the overall roof load as much as 25 percent. If possible, air should flow in the same direction as the prevailing wind. Intake louvers should be spotted to create the longest flow paths to the exhaust fan and avoid short circuits.

In considering the measures we

can take to reduce the flow of heat through the roof, we must not overlook overhang. Proper extension of the roof beyond the walls of a house creates shading, which is a particularly significant factor in reducing solar radiation on glass areas.

#### Explain 'U' Values

Now let's consider the walls and windows. If the building contractor or homeowner doesn't understand the "U" (heat transfer) values of his walls, the air conditioning dealer-contractor can be of real service by explaining how easily a small investment in insulation can pay off not only in operating costs, but also in the cost and size of the equipment reguired. "U" values for uninsulated walls may average between 0.25 and 0.35. Mineral wool 35% in. thick in the wall can reduce these figures to 0.071 and 0.078 Btuh/ sq ft/deg F respectively - roughly 1/4 their original values. The advantage applies, of course, to heating as well as cooling, and relatively little effort is required to determine the cost of insulation and evaluate it in terms of savings in the initial and operating cost of conditioning equipment.

### What Is 'Air Conditioning'?

True air conditioning provides comfort in all seasons, according to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers. ASHRAE defines air conditioning as:

"Air conditioning is the process of treating air so as to control simultaneously its temperature, humidity, cleanliness and distribution to meet the requirements of the conditioned space."

#### THIS SPECIAL SERIES

. . . on subjects of interest to residential air conditioning dealer-contractors is based on the author's wide experience and on constant analysis of the field by American Artisan's editors.

#### IT ALL BEGAN

. . . with a complete rundown on fundamentals in 20 articles beginning in August, 1952 American Artisan, describing basic operation of air conditioning equipment.

#### SPECIFIC PROBLEMS

. . . treated in the next phase of the series covered maintenance, service, installation and management.

## NOW PRACTICAL APPLICATIONS

... to solve common problems which have been experienced by the author and by dealer-contractors are covered in the current selection of case histories, procedure outlines and specific examples.

Window and glass areas in a house are sources of considerable heat gain, but here again, special load reduction measures can be taken. The usual procedure in load calculation is to assume some kind of reflecting window shades inside the conditioned space, which reduce the load 25 to 50 percent from the bare glass value of solar heat gain. Careful consideration. however, should be applied to the possibility of increasing roof overhang or providing some special shading device or awning to shield the glass. Outside shading screens and heat absorbing glass are also available for partial reduction of solar radiation. The special glass will transmit only about 60 percent of the solar energy it receives as compared with about 85 percent through ordinary glass.

While these measures will reduce solar energy transmission, they don't reduce heat flow due to temperature difference. This is done by providing double layers of glass to add resistance in the heat flow path. In residences, we find examples of this in storm windows, removable double glazing panels and sealed double insulating glass.

A study of the house plan may also reveal the desirability of insulating certain partitions which separate unconditioned from conditioned spaces, such as those between the house and an attached garage or enclosing a utility room. Insulation might even be used to advantage in the first floor which separates the living quarters from an unconditioned basement.

#### Weigh Latent Heat Load

We must also remember that the residential cooling load is not all sensible heat. The latent heat of water vapor generated in cooking, laundering and bathing is becoming a bigger factor as house construction becomes tighter. The best method of minimizing excess moisture is to exhaust it at its source. Such exhaust systems are not commonly provided, however, and someone must recognize the need and sell the idea to the architect, builder or buyer.

Water vapor is perhaps an even greater problem during the heating season. No house should be constructed without proper vapor barriers to stop the migration of vapor from inside the house outward into the wall structure where it causes damage to wood, insulation and paint.

#### Don't Pick Up Heat in System

Finally, let's consider the actual installation of the air conditioning system. In many cases ductwork must be run through unconditioned spaces. Unless these ducts are insulated, heat which may not have been figured in the load calculation will be picked up and the equipment selected may not have sufficient capacity to handle the extra load. Concealed stud and joist spaces can be used to handle return air only under certain conditions. If these spaces adjoin warm areas, they should be insulated. Use of a crawl space as a return plenum is not recommended for several reasons, one of which is the possibility of picking up heat and moisture.

In addition to the various considerations of the cooling load, the informed air conditioning dealer-contractor can offer many other contributions to home builders. planners and owners from his store of specialized knowledge. Modern home designs pose many air distribution problems which can be solved only by close cooperation with the building designer. Also worth explaining to builders are zoning possibilities or other special control methods. With the growing interest in air cooled equipment, designers will be interested in learning the requirements in order to consider various means of concealment. The list is growing.

the science of

THE SUCCESS AND GROWTH of every industry depends on its ability to create a desire for the products and services it offers. The responsibility for this motivation falls upon the industry's sales force, who must see to it that sales grow not only in volume but also in quality; that is, they must represent an exchange of maximum benefit to the customers for a fair profit to the business. This exchange permits — and also requires — the business to improve its operation constantly to serve future customers better.

To fulfill this obligation, salesmen must be able to recognize the needs of prospective customers quickly, and then produce logical recommendations for meeting these needs. Thus, training new salesmen and improving sales forces is a continuing task of management.

This series of articles presents some new information and some refinements of established sales methods which will be useful in sales training programs.

If the sales staff is small, route the magazine to each salesman before filing it.

If the sales staff is large enough to warrant weekly sales meetings, use each article as the basis for a continuing training program.

Wholesalers and manufacturers can assist dealer-contractors and their salesmen by building more formal sales training programs around this series.

## \*\*\* Sell the Plusses \*\*\*

If you've ever starred in the drama below, a review of your sales presentation and your products is in order, to uncover the hidden extras you can offer to make your product more desirable than the competition's

THE SCENE: The prospect's living room. Prospect, his wife and dealer-contractor's salesman are sitting around a table. The presentation has been made, and the salesman is trying to close the sale.

SELLING

PROSPECT: "I haven't made up my mind yet."

Salesman: "I can assure you, our equipment is as good as any other manufacturer's."

PROSPECT: "No better?"

Salesman: "I wouldn't say that. It's just as good as anybody else can offer."

PROSPECT: "If all the equipment is about the same, it doesn't make much difference whose equipment you install, does it?"

SALESMAN: "That's why we handle three different brands—to give you a choice."

PROSPECT: "Leave your card; I'll let you know."



How often have you heard the fatal words, "Leave your card and I'll let you know when I decide"? Certainly enough to know the sequel to the drama on the preceding page, entitled, "The Prospect Never Called."

Suppose your product isn't especially different from the competition's? What then?

Sell the fringe benefits — those distinctive extras in and around your product that can often change a tired prospect's "No" into an enthusiastic "Yes!" Extras such as quicker installation, the company's service policy, company facilities for helping customers in ways they may not realize.

These hidden plusses aren't hard to find. Usually, they've simply been around so long they're taken for granted by the salesman and left to wither on the vine rather than to sow a harvest of sales.

Consider how fringe benefits help you sell:

 They take the buyer's mind off price and put it where it belongs — on value.

2) They build up his confidence in you by offering impressive proof that you know your company and all the advantages it offers the buyer.

They multiply your chances of hitting on the benefit that looms largest in the prospect's mind.

In short, they make your product, your company and you yourself "different."

Let's take a look at some of these "hidden" plusses:

+ , Easier payments: All else being equal. your company's financing assistance could make things unequal — in your favor.

An air conditioning salesman suggests: "Buy the summer air conditioning system now and you need not make any payments until after Labor Day. You can enjoy comfort throughout the summer for only the cost of operation."

+ Free consultation: Help a man save money, increase efficiency or beef up his profits and you rise high above your "order taker" brethren.

This applies specifically to small business prospects for whom packaged summer air conditioning equipment will help overcome the "summer slump."

+ **Help in crises:** The plus factor that might persuade your very next prospect could be your company's off-beat or little-known facilities for handling S.O.S. situations.

Examples: "If we haven't the parts you need, we'll locate someone who does." Or, "24-hour-a-day, 7-days-a-week service."

Tell about the emergency problems your firm is equipped to handle.

\* Packaging: Some of the most persuasive presentations center on the way products are pack-



## THE IMPORTANCE OF SPEAKING UP

Even if your competitor can offer the same "fringe benefits" as you—the odds are, he doesn't! Your edge may come simply from taking the trouble to underscore them.

Example: the office machine salesman who, losing out to a rival, asked the customer why.

"Your competitor sends a man here to show our girls how to operate the machines," answered the customer.

"B-b-but we do that, too!" the salesman sputtered.

"Ah, why didn't you say so?"

aged. Point out that the packaging keeps the product cleaner, protects it against breakage or damage in shipment and depositing it at the job site.

+ Special customer service: The prospect who remains unmoved by your product story may "come to life" when informed of the unique personal service you are prepared to offer him. Frequently, this is the only plus factor you can offer. But what a difference it makes!

Case in point: International air travel, one of the most standardized "products" in existence. Rates are fixed; schedules are equally convenient; menus vary little. How, then, can an airline set itself above the competition?

"One plus factor alone gives us our competitive edge," says Peter R. Ossendorf, eastern regional manager of Lufthansa German Airlines, "— personal service. For example, while the International Air Transport Association, to which we and most of our competitors belong, has spelled out the kinds of food we can offer at various price levels, we are in no way limited in our preparation of it. So that's where we work to excel. Our cuisine is one of our strongest selling points.

"Then there are the special foods we can offer passengers who make their wishes known in advance sugar-free dishes for diabetics, even low-calorie foods for dieters.

"It's to extras like these that we attribute our healthy growth in a most competitive field."



Personalized service can do more than nose out the competition. It can substantially increase the size of an order.

R. Parker Sullivan, vice president, merchandising. General Telephone & Electronic Corp., explains: "We don't consider ourselves just a telephone company; rather, we're in the communications business, Since no two customers have precisely the same problems, we must necessarily tailor our service to their needs.

"One customer may be plagued by noise; the answer for him would be a sound-booster telephone. Perhaps another must consult books and catalogs while on the phone; that calls for a hands-free speaker instrument. A third may need message-taking equipment; a fourth, special intercom facilities; a fifth, a combination of several devices.

"More than once, a man has called us with nothing more in mind than the installation of an additional extension phone, only to end up with an entirely revamped communications system — and grateful to the sales engineer who took the trouble to study and solve his problems."

What about the "optionals" and extras in your product lineup? Are you telling prospects about them as often as you should?

Complete line: If your company offers a full line, feature the plusses inherent in receiving several products from one source: dependability, custom design to match specific capacities, interchangeability of parts and matching companion pieces. Even banks have found this a potent selling point — they promote: "One-stop banking" . . . "all your financial needs served under a single roof."

+ Dependable parts stock: Availability of and familiarity with parts needed for many makes, models and types of equipment can impress a prospect when all else fails. Make the most of the large inventory your company maintains in your sales presentation.

• Guarantees: "True—our price is the same, our product may resemble the others, but look at the warranty you get. No charge for any replacement parts for a full 12 months." "It's guaranteed—not for 30 days, not for three months, but for a whole year." "If there's any mechanical failure, we'll give you free service and there's no charge for any part replaced."

Is the product covered by an "insurance policy"? If so, sell it!

4 Multiple benefits: Few people can resist a bargain. Show a man how he can get extra mileage out of your product and he's an odds-on favorite to buy.

Or, consider how salesmen for Pitney-Bowes, Inc. straight-arm the objection, "We don't carry on a big enough correspondence to warrant using postage meters."

"Our answer to that one," says branch manager D. E. Johnston, "is an impressive list of plusses, 'Quite aside from the savings on labor, Mr. Brown,' we say, 'think of these advantages; metered postage can't be lost or stolen; the machine does its own accounting—you know at a glance exactly how much you've spent on postage, how much you have left; because it's already canceled, metered mail skips certain post office procedures and gets to its destination faster than ordinary mail; and the message or symbol that you can stamp on every envelope along with the postage gives you valuable free advertising."

"The combined weight of all these considerations frequently makes the difference between a brush-off and a pay-off."

Don't overlook any uses for—or advantages of the product you are recommending, whether it's a small commercial summer air conditioning system, modernization of a gravity warm air heating system, or a direct-fired unit heater arrangement for a warehouse or factory.

+ **Delivery:** The promise of fast installation and startup can make a most effective difference.

Explain how the business operates, once the order is signed, to fabricate the fittings needed, assemble and deliver all equipment required, schedule mechanics and specialists to coordinate their work to produce a speedy installation with the least amount of inconvenience to the prospects. Show how your firm can out-deliver the competition.

Plus factors can be found by those who look for them. They've been there all along. Salesmen have only to dust them off to discover how persuasively attractive they can be.

## SHOW SECTION

## 2nd Southwest Exposition and ASHRAE Meeting Open 1960 Heating and Air Conditioning Season

Products display and technical sessions will highlight growth of heating and air conditioning industry

THE 2nd Southwest Heating and Air Conditioning Exposition and the semi-annual meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers opens in Dallas on Monday, February 1. The show will run Monday through Thursday, from noon until 10 p.m. The society meeting also ends on Thursday. Technical sessions will be held in the morning only, starting at 9:30 a.m. and terminating at 11:45 a.m.

The exposition will be held at Memorial Auditorium. The headquarters for the society will be the Baker Hotel.

This is the first exposition held under the auspices of the society in Dallas since the combined exposition and annual meeting were held there in 1950. There will be approximately 200 exhibitors showing their latest products covering the heating, refrigeration, air conditioning, ventilating, and evaporative cooling fields.

Early arrivals can register on Sunday any time after 10 a.m. Registration for the society meeting is an automatic registration for the exposition.

Subjects scheduled for coverage at the technical session will deal with absorption refrigeration, heating, thermoelectric refrigeration, sound control, heat transfer, use of plastics on domestic refrigerators, commercial refrigeration, fenestration, window air conditioning units, and automotive air conditioning.

At the exposition heat pumps will be featured by several exhibitors, along with both remote and self-contained air conditioning units. One exhibitor will introduce several completely new models of air conditioners and heat pumps, as well as a new line of compact forced air furnaces. Another, specializing in residential and light commercial refrigerated air conditioning is offering a remote condenser unit designed to provide high economy at high ambient temperatures. A manufacturer of 2 to 10 ton remote air conditioners and heat pumps, recommends water cooled condensing units because of high capacity and low operating cost.

There will be a packaged 50 ton air conditioning unit with a builtin evaporative condenser, which may be installed inside a building as a self-contained unit, or set up independently, completely exposed, Show Hours
12 noon to 10 p.m.
Monday through Thursday
February 1-4, 1960

but requiring no covering.

A new line of unit heaters and a new approach to the design of cooling condensers are to be offered in one display. A line of packaged liquid chillers with optional condenser units will be offered in another in sizes up to 125 tons. A 50 year old manufacturer offering high pressure air handling units will show a miniature air conditioning system in operation.

These and many other products will be featured during the four day exposition.

### **Technical Program**

#### Monday, Feb. 1

Frost Formation on Coils, Heat Exchangers.

#### Tuesday, Feb. 2

Air Conditioning Symposium, Noise Reduction, Chimney Performance, Steam Flow in Copper Tubing, Forums on Industrial Ventilation, Air Cooled Condensers, Piping and Pickup Factors.

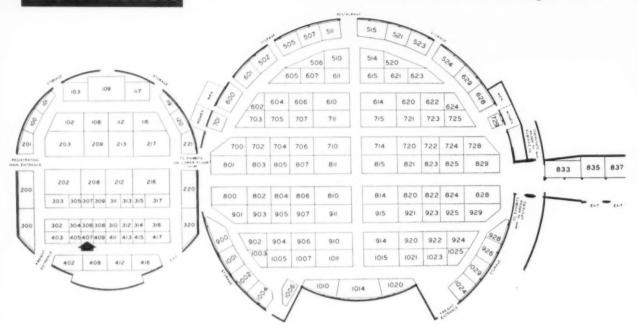
#### Wednesday, Feb. 3

Psychrometric Chart Symposium, Solar Heat Gain, Compressor Characteristics.

#### Thursday, Feb. 4

Summer Weather Data, Proposed Humidity Standard, Fenestration Symposium with reference to heating and air conditioning.

### Floor Plan of the Exposition

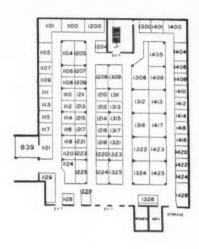


### THE EXHIBITORS AND THEIR BOOTH NUMBERS

A. J. Mfg. Co
Со
Acme Industries,
Inc
AIMCO Products Corp., a
Subsidiary of Yuba Con-
solidated Industries, Inc 728
Air Conditioning Industries,
Inc1223
Air-Con Filter Corp 1404
Air Devices Inc1110
AirGuide Plastics Corp 605
Airserco Mfg. Co., Inc 1120
Ajax Boiler & Heater
Со
Alco Valve Co906
Allis-Chalmers Mfg. Co 200
Alton Mfg. Co
American Air Filter Co.,
Inc 524, 628, 629
American Artisan407
American Furnace Co 315, 317
American Gas Association 1005
American Metal Mfg. Co 405
American Society of Heating,
Refrigerating, and Air-
Conditioning Engineers,
Inc220
American-Standard Indus-
trial Div907, 911
AmeriVent, a Div. of Amer-
ican Metal Products Co.,
Inc702
Ammerman Co., Inc
Anemostat-Waterloo102
Ansul Chemical Co
Arkla Air Conditioning Corp. 910

OTH HUMBER
Coolerator Div., McGraw- Edison Co
Dallas Power & Light Co 810 Day & Night Mfg. Co 502, 601 Detroit Controls Div. of American-Standard 805 Drayer-Hanson Div. of National-U. S. Radiator Corp 1129 Dryomatic Corp 1118 Dunham-Bush, Inc 203, 209 du Pont de Nemours & Co., E. I
Econo Products Co., Inc 606 Edwards Engineering Corp 109 Eggelhof Engineers Inc 1224 Electro-Air Cleaner Co
Fairbanks Co., The       1109         Farr Co.       829         Fedders Corp.       820         Felter Co., John       701         Flanders Filters, Inc.       1425         Flexible Tubing Corp.       305         Fluor Products Co.       300         Fraser & Johnston Co.       914         Furnas Electric Co.       722
Gaffers & Sattler

## SHOW SECTION



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Gustin-Bacon Mfg. Co 600
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Illinois Testing Laboratories,
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KSM Products, Inc
Lima Register Co
Lone Star Gas Co1005
McDonnell & Miller, Inc 804 McQuay, Inc
Magic Aire Div., United Electric Co928
Major Controls Co
Marley Co., The814
Marlo Coil Co700
Metal Mfg. Co
Midland-Ross Corp., Janitrol
Heating & Air Conditioning
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Milwaukee Electric Tool
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Mine Safety Appliances Co 302
Minneapolis-Honeywell Regu-
lator Co 1024, 1029
Monogram Industries, Inc 721
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Worthington Corp 921, 923
Muellermist Irrigation Co.,
Fanjet Roof Cooling Div 310
Multi-Vent Div. of Pyle Na-
tional Co
Norman Products Co 900
Northwest Foundry & Furnace
Со
Olsen Mfg. Co., The217
Omark Industries, Inc 1405
Owens-Corning Fiberglas
Corp821
Payne Co., The903
Peerless Mfg. Div. of Dover
Corp1015
Penn Controls, Inc724
Perfection Industries Div. of
Hupp Corp901
Powder Tool Supply, Inc1405
Process Solvent Co., Inc 1229
Randall Graphite Bearings,
Inc
Raypak Co., Inc824
Ready-Power Co1007
Recold Corp119, 120
Reed Unit Fans, Inc 1025
Refrigeration Research, Inc. 1423
Research Products Corp803 Revcor, Inc1414
Rheem Mfg. Co 915
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Ridge Tool Co., The 1004
Robertson Co 704
Rotherm Engineering Co.,
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Schemenauer Mfg. Co. 1424, 1428
Schnacke, Inc308
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Southwest Mfg. Co614

Southwest Refrigeration
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Sporlan Valve Co 1001
Sprague Electric Co 1128
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ing & Air Conditioning Div.
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stoudard industries, inc1400
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Texas Products Mfg. Co 607 Texas Refrigeration & Engi-
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Torrington Mfg. Co
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Flintkote Co 1200
Ventco, Inc
Vibration Mountings, Inc 506 Viking Air Products Div. of
National-U. S. Radiator Corp. 311
Vilter Mfg. Co., The1105
Wallace Co
Ward Co
Warren Register & Grille,
Inc1107
Waterloo Register Co 102
Western Supply Co 1214, 1216
Westinghouse Electric Corp., 825 Westinghouse Electric Corp.,
Air Conditioning Div 514
Wheeling Trueing Tool Co.
1410, 1412
White-Rodgers Co 1308 Wiegand Co., Edwin 1115, 1117
Wiggin Products Co924
Wing Mfg. Co., L. J., Div. of
Aero Supply Mfg. Co.
1218, 1220
Worthington Corp925, 929
Yeats Appliance Dolly Sales,
Inc
Yuba Consolidated Indus-
tries, Inc

## Products on Display

While attending the 2nd Southwest Heating and Air Conditioning Exposition you will want to get the most out of the time you spend there. To assist you in seeing the equipment of specific interest, this show section has been compiled with the cooperation of exhibitors and by the show management. Information

is as complete as possible as of press time.

To use this directory of exhibited products, look under the heading describing the product and circle the manufacturer's booth on the floor plan shown on pages 216 and 217.

For additional information, visit Keeney Publishing Co.'s booth, No. 407.

#### **Absorption Generators**

Carrier Corp.	1010-1014-1020
Trane Co., The	505-507-511
York Corp., Sub. of Warner	706-710-807-811

#### Air Conditioning Units and Components, Residential

AIMCO Products Corp., a Sul	1.
of Yuba Consolidated	**
Industries, Inc.	728
	315-317
Bar Brook Mfg. Co. Inc.	902
	1014-1020
Chattanooga Royal Co. 409-41	
Chrysler Corp., Airtemp	
	0-622-723
Cobell Industries Inc.	806
Copeland Refrigeration Corp.	
Curtis Mfg. Co.	320
Dallas Power & Light Co.	810
Day & Night Mfg. Co.	502-601
Drayer-Hanson, Div. National-	
U.S. Radiator Corp.	738
Dunham-Bush, Inc.	203-209
Fraser & Johnston Co.	914
Gaffers & Sattler	715
International Mfg. Co.	828
Janitrol Heating & Air Condit	tion-
ing Div., Surface Combustic	on
Corp.	714
Musiler Climatrol, a Div.	
of Worthington Corp.	921-923
Olann Mfg. Co., The C. A.	217
Payne Co., The	903
Olsen Mfg. Co., The C. A. Payne Co., The Perfection Industries	901
Sequeia Mfg. Co.	1118
Southwest Mfg. Co.	614
Texas Products Mfg. Co.	607
Trane Co., The 5	05-507-511
United States Air Conditioning	
Corp.	905
Western Supply Co., Contract	
Mfg. Div.	1214-1216

York	Corp.,	Sub.	of	
Wa	rner			706-710-807-81

#### Air Conditioning Units and Components, Commercial-Industrial

Alton Mfg. Co.	403
Carrier Corp.	1010-1014-1020
Worthington Corp.	921-923-925-929
York Corp., Sub. of	Borg-
Warner	706-710-807-811

#### Air Handling Units (Commercial-Industrial)

( commercial manage	/
Air Conditioning Industries, In Drayer-Hanson, Div. National-	
U.S. Radiator Corp.	738
Dunham-Bush, Inc.	203-209
Halstead & Mitchell	926
Magic Aire Div., United	
Electric Co.	928
Marlo Coil Co.	700
Recold Corp.	119-120
Texas Refrigeration & Engi-	
neering Co.	1211
Torrington Mfg. Co., The	303
	1215-1217

### Air Mixing Units

Barber-Colman Co.	70
Roses and Mountings	

#### Congress Drives, Div. Tann Corp. 621

Randall Graphite Bearing, Inc. Vibration Mountings Inc.	
D . I D I .	

#### Bearings and Bushings

Randall Inc.	Graphite	Bearings,	304-300
Belts			

#### Barke Products Inc. 729 Congress Drives, Div. Tann Corp. 621

#### Blowers, Centrifugal

Ilg	Electric	Ventilating	Co.	920-922
Mon	rrison Pro	ducts, Inc.		615
Util	lity Fan	Corp.		711
Vik	ing Air I	Products		311

#### **Blower Wheels**

Torrington	Mfg.	Co.,	The	30

#### Boilers

Cleaver-Brooks Co.	624
Edwards Engineering Corp.	109
Eggelhof Engineers Inc.	1224
Industrial Combustion Inc.	802

#### Burners, Gas and Oil

Gordon	Ø.	TD: 00	Torre	20
Cordon	O.	Platt.	Inc.	20

#### Chimneys, Prefabricated

Van-Packer Co., Div. of the	
Flintkote Co.	1200
Wallace Co., William,	
Metalbestos Div.	313

#### Coils, Heating or Cooling

Dunham-Bush, Inc.	203-209
Magic Aire Div., United	Electric
Co.	928
Marlo Coil Co.	700
Schemenauer Mfg. Co.	1424-1428
Trane Co., The	505-507-511
Tubenfin Coil Co., Inc.	1215-1217

#### Condensers, Refrigerating

Industries,	Inc.	72 122
	dated Indus	Corp., a Sub. dated Industries, Industries, Inc.

## SHOW SECTION

		SHOW SECTI
Baltimore Aircoil Co., Inc. 408-412	Electronic Air Cleaners	Day & Night Mfg. Co. 502-601
U.S. Radiator Corp. 738	American Air Filter Co.,	Gaffers & Sattler 715
Dunham-Bush, Inc. 203-209	Inc. 524-628-629	Monogram Industries, Inc. 721 Mueller Climatrol,
Goodfellow Co., Inc., E. D. 611 Halstead & Mitchell 926	Chrysler Corp., Airtemp Div. 620-622-723	Div. of Worthington Corp. 921-923 Northwest Foundry & Furnace
Magic Aire Div., United Electric Co. 928	Electro-air Cleaner Co., Inc. 835-837-839	Co. 1311 Olsen Mfg. Co., The C. A. 217
Marlo Coil Co. 700 Recold Corp. 119-120	Trion Inc. 1112	Payne Co., The 903
Recold Corp. 119-120 Tubenfin Coil Co., Inc. 1215-1217 Yuba Consolidated Industries,	Evacuating Pump	Peerless Mfg. Div., Dover Corp. and Dura-Vent Corp. 1015
Inc. 725-728	Bell & Gossett Co. 416	Perfection Industries 901 Sequoia Mfg. Co. 1118
Condensing Units, Refrigerat-	Evaporative Cooler Media	Southwest Mfg. Co. 614 Texas Products Mfg. Co. 607 Texas Co. The Forest
ing (Over 10 tons)	Research Products Corp. 803	Trane Co., The 505-507-511
Bell & Gossett Co. 416 Schnacke, Inc. 308	Evaporative Coolers	Gas Air Conditioners
Trane Co., The 505-507-511 Worthington Corp. 921-923-925-929	Farr Co. 829 Gaffers & Sattler 715	Arkla Air Conditioning Corp. 910 Cobell Industries Inc. 806
Control Panels	International Metal Products Co. 602-604	Gas Regulators
Barber-Colman Co. 707	Expansion Joints	Major Controls Co. 823
General Controls Co. 904 Gordon & Piatt, Inc. 201	Eggelhof Engineers Inc. 1224	Gas Venting Systems
Johnson Service Co. 108-112-116	Rotherm Engineering Co., Inc. 1003 Vibration Mountings Inc. 506	Hart & Cooley Mfg. Co. 1023 Peerless Mfg. Div., Dover
Controls, Heating, Air Con- ditioning and Refrigerating	Yuba Consolidated Industries, Inc. 725-728	Corp. and Dura-Vent Corp. 1015 Van-Packer Co., Div. of the
Automatic Devices Div., Amer-	Fan Blades	Flintkote Co. 1200
ican Machine and Metals, Inc. 101 Baso Inc. 1418-1420	Ventco, Inc. 1204	Wallace Co., William, Metal- bestos Div. 313
Centrols Co. of America 822	Torrington Mfg. Co., The 303	Generators
Detreit Controls Div. of Amer- ican-Standard 805	Fans, Attic and Wall	Milwaukee Electric Tool Corp. 1114
General Controls Co. 904 International Mfg. Co. 828	Acme Engineering & Mfg. Corp. 833	Hand Trucks, Dollies and
Johnson Service Co. 108-112-116 Penn Controls, Inc. 724	Bar Brook Mfg. Co. Inc. 902 Rich Fan Mfg. Co., Phil 1204	Delivery Covers
Vilter Mfg. Co., The 1105 White-Rodgers Co. 1308	Fans, Propeller	Fairbanks Co., The 1109 Yeats Appliance Dolly Sales Co. 417
Cooling Towers	Ilg Electric Ventilating Co. 920-922 Reed Unit Fans, Inc. 1025	Handles, File and Soldering
Carrier Corp. 1010-1014-1020	Filter Coatings	Iron
Fluor Products Co. 300 Goodfellow Co., Inc., E. D. 611	Research Products Corp. 803	Duro Dyne Corp. 1113
Marley Co., The 814	Filter Gages	Hardware, Duct and Damper
Schnacke, Inc. 308	Econo Products Co., Inc. 606	Duro Dyne Corp. 1113
Dampers, Air System	Filters	Heat Exchangers
Air Guide Plastics Corp. 605 Barber-Colman Co. 707	American Air Filter Co.,	Bell & Gossett Co. 416
Econo Products Co., Inc. 606	Inc. 524-628-629	Yuba Consolidated Industries, Inc. 725-728
Morrison Products, Inc. 615	Farr Co. 829 Flanders Filters, Inc. 1425	Heat Pumps
Draft Inducers	Mine Safety Appliances Co. 302 Research Products Corp. 803	
Wing Mfg. Co., L. J., Div. of Aero Supply Mfg. Co. Inc. 1218-1220	Viking Air Products 311	Felter Co., John 701
	Finned Tubing	Kitchen Hoods
Duct Screws	Yuba Consolidated Industries,	Morrison Products, Inc. 615
Duro Dyne Corp. 1113	Inc. 725-728  Flexible Duct Connectors	Humidifiers
Duct Systems	Duro Dyne Corp. 1113	Research Products Corp. 803
Gustin-Bacon Mfg. Co. 600		Infra Red Heaters
United Sheet Metal Co., Inc. 1002 Viking Air Products 311	Flexible Ducts Flexible Tubing Corp. 305	Hanovia Lamp Div., Englehard Industries, Inc. 1221
Duct Tape	Furnaces	Texas Infra Red Radiant Co., Inc. 1101
Duro Dyne Corp. 1113	American Furnace Co. 315-317	Wiggin Products Co., Inc. 924
Electric Resistance Heating	Bar Brook Mfg. Co. Inc. 902 Chattanooga Royal	Insulation Armstrong Cork Co. 720
Equipment	Co. 409-411-413-415	Gustin-Bacon Mfg. Co. 600
Dallas Power & Light Co. 810	Chrysler Corp., Airtemp Div. 620-622-723	Johns-Manville Sales Corp. 402
llg Electric Ventilating Co. 920-922 Wiegand Co., Edwin L., L. R.	Cobell Industries Inc. 806 Coleman Co. 801	Insulation Adhesives
Ward Co. 1115-1117	Fraser & Johnston Co. 914	Duro Dyne Corp. 1113

## SHOW SECTION

Motors	Anemostat-Waterloo	102 701	Tools, Refrigeration
Smith Corp., A. O. 610	Felter Co., John Hart & Cooley Mfg. Co.	1023	Ansul Chemical Co. 117
Controls Co. of America 822	International Mfg. Co.	828	Henry Valve Co. 312-314
Westinghouse Electric Corp. 825	Lima Register Co. Metal Mfg. Co.	1309 1111	Unit Heaters, Direct-Fired
Motor Controls	Multi-Vent Div., The Pyle-		
Allis-Chalmers Mfg. Co. 200	National Co. United States Register Co.	1121 316	Arkla Air Conditioning Corp. 910 Janitrol Heating & Air Condi-
Arrow-Hart & Hegeman Electric	Warren Register & Grille Inc.		tioning Div., Surface Com-
Co. 1213 General Controls Co. 904	Reprint Books, Market		bustion Corp. 714 Day & Night Mfg. Co. 502-601
Westinghouse Electric Corp. 825	Information		Norman Products Co. 900
Pilot Valves	Keeney Publishing Co.	407	Olsen Mfg. Co., The C. A. 217 Trane Co., The 505-507-511
		407	Wing Mtg. Co., L.J., Div. of
Baso Inc. 1418-1420	Roof Cooling Systems		Aero Supply & Mfg. Co. Inc. 1218-1220
Pipe and Fittings, Duct	Fanjet Roof Cooling Div.,		
System	Muellermist Irrigation Co.	310	Unit Heaters, Steam or Hot
American Metal Mfg. Co. 405	Roof Ventilators		Water
Pipe and Fittings, Fluid	Acme Engineering & Mfg. Corp.	833	Dunham-Bush, Inc. 203-209 Ilg Electric Ventilating Co. 920-922
System	Bar Brook Mfg. Co. Inc.	902	Peerless Mfg. Div., Dover Corp.
Fairbanks Co., The 1109	Cook Co., Loren Felter Co., John	103 701	and Dura-Vent Corp. 1015
	Greenheck Fan & Ventilator Corp	. 1116	Wing Mfg. Co., L.J., Div. of Aero Supply Mfg. Co. Inc. 1218-1220
Pulleys	Ilg Electric Ventilating Co. 95 Jenn Air Products Co., Inc.	20-922 623	Unit Ventilators
Barke Products Inc. 729	Reed Unit Fans, Inc.	1025	
Congress Drives, Div. Tann Corp. 621	Trane Co., The 505-50	07-511	Schemenauer Mfg. Co. 1424-1428
Pumps	Schoolroom Heating and		Valves, Gas Control
Allis-Chalmers Mfg, Co. 200	Ventilating Systems		Controls Co. of America 822
Bell & Gossett Co. 416 Dunham-Bush, Inc. 203-209	Janitrol Heating & Air Condi-		Major Controls Co. 823
Dunham-Bush, Inc. 203-209 Goodfellow Co., Inc., E. D. 611	tioning Div., Surface Com- bustion Corp.	714	Valves, Steam and Water
Ingersoll-Rand Co. 815	Norman Products Co.	900	Edwards Engineering Corp. 109
Radiation	<b>Sheet Metal Working</b>		Fairbanks Co., The 1109
Dunham-Bush, Inc. 203-209	Machines		General Controls Co. 904
Edwards Engineering Corp. 109	Lockformer Co., The	1205	Water Chillers
Schemenauer Mfg. Co. 1424-1428 Trane Co., The 505-507-511			Arkla Air Conditioning Corp. 910
Trane Co., The 303-307-311	Shutters and Louvers		Carrier Corp. 1010-1014-1020
Refrigerants	Acme Engineering & Mfg. Cor		Chrysler Corp., Airtemp Div. 620-622-723
Ansul Chemical Co. 117	Bar Brook Mfg. Co. Inc. Rich Fan Mfg. Co., Phil	902 1204	Curtis Mfg. Co. 320
du Pont de Nemours & Co., E. I. 1104-1106	United States Register Co.	316	Dunham-Bush, Inc. 203-209 Schnacke, Inc. 308
E. I. 1104-1106 General Chemical Div., Allied	Solenoid Valves		Vilter Mfg. Co., The 1105
Chemical Corp. 1324	Alco Valve Co.	004	Western Supply Co., Contract Mfg. Div. 1214-1216
Refrigeration System Parts	General Controls Co.	906 904	Worthington Corp. 921-923-925-929
	Steam Specialties		York Corp., Sub. of Borg- Warner 706-710-807-811
Airserco Mfg. Co. 1120 Alco Valve Co. 906	Steam Specialties		
Ansul Chemical Co. 117 Controls Co. of America 822	Dunham-Bush, Inc. McDonnell & Miller Inc.	203-209	Water Heaters
Detroit Controls Div. of Amer-		001	Coleman Co. 801
ican-Standard 805	Tools, Hand		Gaffers & Sattler 715
General Controls Co. 904 Henry Valve Co. 312-314	Duro Dyne Corp. Milwaukee Electric Tool Corp.	1113 1114	Water System Accessories
Recold Corp. 119-120 Sporlan Valve Co. 1001	Ridge Tool Co., The	1004	Bell & Gossett Co. 416
	<b>Tools, Pipe Cutting</b>		Dunham-Bush, Inc. 203-209 McDonnell & Miller Inc. 804
Registers, Grilles and Diffusers	Ridge Tool Co., The	1004	Welders
A-J Mfg. Co. 1100		1001	
Air Devices Inc. 1110	Tools, Powder Actuated		Duro Dyne Corp. 1113 KSM Products, Inc. 1208
Air Guide Plastics Corp. 605	Omark Industries, Inc.	1405	Omark Industries, Inc. 1405



Baltimore, Maryland, service engineer reports: "'Freon' refrigerants help us do a better servicing job. It's dry and safe-the most dependable refrigerant on the market today."



East Rockaway, New York, contractor reports: "Nothing works like 'Freon' I'm convinced it's the best refrigerant on the market-safe and dependable for any job."



Louisville, Kentucky, service man reports: "'Freon' is the world's best refrigerant for our money. It's pure, dry and safe-never causes one bit of worry or trouble."



Atlanta, Georgia, contractor reports: "We've never had a bad batch of 'Freon' in the 25 years we've used it. It's never caused us trouble on the job or-after vears of service-in a system."



Tucson, Arizona, service man reports: "'Freon' refrigerants help us do the best job possible. They're reliable and safe. Since 'Freon' came out, we've never used anything else."



St. Louis, Missouri, service man reports: "We've never had a moisture or corrosion problem in equipment charged with 'Freon.' It's absolutely dependablealways pure and dry."

## All over the country, users are talking about the advantages of Freon\* refrigerants



East, west, north or south-contractors and service men appreciate the extra quality of "Freon" refrigerants that costs them nothing extra.

"Freon" is today's premium-quality refrigerant . . . stable, pure, dry -nonflammable, nonexplosive, nontoxic. It's time-tested-in use over 27 years and made only by Du Pont-backed by years of technical and manufacturing leadership.

Specify "Freon" refrigerants for every refrigerant need. Your Du Pont wholesaler has it-now capped in gold and factory-sealed to guard its purity till you're ready to use it.



FREON® premium quality

\*Freon and combinations of Freon- or F- with numerals are Du Pont's registered trademarks for its fluorinated hydrocarbon refrigerants.

BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

# DELAVAN

oil burner nozzles and accessories

All Delavan nozzles are Bi-Metal construction for superior performance and extra years of service. Brass body assures cooler nozzle operating temperatures. Varnish and oil residue buildup is greatly reduced. Stainless steel metering parts are used for longer life.

All Delavan nozzles are individually spray tested at the factory to insure reliability and uniformity in use.



#### 1. TYPE A HOLLOW CONE SPRAY HOLLOW CENTER

Delivers atomized oil into the outer edge of the pattern. Recommended especially for burners with a hollow cone air pattern. Above 15.00 GPH furnished without strainers.

#### 2. TYPE B SOLID CONE SPRAY FULL CENTER

Produces a spray which distributes oil droplets in a uniform pattern. They are especially recommended for larger burners to provide smoother ignition. Above 15.00 GPH furnished without strainers.

## 3. TYPE W ALL PURPOSE SPRAY PATTERN

Covers the critical range of sizes from .50 GHP — through 1.35 GPH. Excellent performance on all burners in these sizes regardless of the air pattern. Use Type W for any size not available in, Types A or B.

#### 4. SINTERED FILTERS

Delavan sintered filters are made of thousands of tiny bronze balls fused together into a uniform thickmess and density filtering medium. This type of filtering device gives more effective filtering area and is virtually impossible to crush or contaminate in handling. Nozzles with sintered filter furnished as standard in all fractional gallonage sizes. Not furnished above 2.00 GPH.

#### 5. NOZZLE RACKS

Delavan nozzle racks are available in two sizes: "270" (holds approximately 250 nozzles, recommended for dealers) and "630" (holds approximately 600 nozzles, recommended for jobbers). Racks are delivered with spacer clips and adhesive labels. Clearly marked channels simplify nozzle selection; eliminate searching for nozzels in dark bins or drawers.

#### 6. NOZZLE BOXES

Available in two sizes: the 24 nozzle and 48 nozzle box. Hold most popular brands. The "24" is 8½ x 3½ x 1¾" heavy duty steel, welded corner construction, sturdy snap latch, rugged hinged lid. Marble grey baked enamel finish.

The "48" is 3½ x 3¾ x 9¼", double-deck design, each tier holding 24 nozzles. Piano hinged lid, heavy steel construction, top handle, removable trays for cleaning and rugged snap latch. Marble grey baked enamel.

#### 7. SERVICEMAN'S KIT

Heavy steel case, 11" x 6" x 4". Steel tray in top half of box is designed to hold 41 nozzles, a ½4 MPT test gauge, 0 to 300 psi, and a plastic container for an assortment of filters and strainers. Bottom holds a nozzle changer, female coupling ½4" FPT x ¼" flare, half union ½8" x ¼4" flare, half union ¼4" x ¼4" flare and a seven inch section of formed ¼4" tubing with two flare nuts. Tubing and fittings provide easy access to burner pump in cramped quarters. There is ample room in the bottom for other items.

#### FILLED KIT

Consists of kit, fittings and tools listed above plus 30 nozzles with standard strainers attached as selected, six standard 100 mesh strainers, six Hally Filters and two standard 1/4" and 1/4" adapters. Please

specify nozzle capacities and spray angles when ordering filled kits.

#### 8. INSPECTION MIRRORS

The round mirror is 3\%" in diameter. The oblong mirror is 3\%" x 1-15/16". Both furnished with 20" handles made in three sections to fit a serviceman's kit. Reflecting surfaces on both sides are polished nickel plate on mirror quality brass, highly resistant to discoloration due to excessive heat. A protective heavy cloth bag is furnished with each mirror.

#### MIRROR PARTS

1-Handle end section. 2-Handle center section. 3-Handle hinge section with screw. 4-Round mirror with hinge section. 5-Oblong mirror with hinge section. (Net wt., complete with cloth bag, 7 oz.)

#### 9. NOZZLE CHANGERS

Two models: The Standard made of rugged tool steel with a smooth plated finish. Only four parts, cannot come apart in your tool box. Knurled handles and hex sockets for nozzle and adapter are broached construction — never loosen. Standard Nozzle Changer fits only ¾" adapters.

The Super Nozzle Changer, all Standard features plus an extra broached socket. Super Changers come equipped with two adapter sockets, ¾" and 11/16" — handle the two adapter sizes currently in use.

A free catalog of Delavan's complete line of Oil Burner Nozzles and accessories will be sent to you upon request.



# DURO

leads the field!

The Greatest Name in Sheet Metal Specialties



#### "DURO-TROL""

For installation in exposed areas where smart, modern appearance and ease of adjustment are of prime importance DURO-TROL Air-Flow Regulator is the answer!



Designed for Sheet Metal men. Tops in quality and holding power. Binding Head . . . sharp points . . . superior hardening plus heavy cadmium plating. Buy the original economical Thousand-Pack.



Available in handy, disposable caulking gun cartridge to eliminate waste and mess. Cartridge produces a ¾" bead of sealer under pressure. Also in 1 gallon cans.



## NEW!

ECONOMICAL! HEAT-RESISTANT! NON-POROUS!

#### "ASBESTOSEAL"

Ideal connector for all furnace installations. Costs less than ordinary asbestos. GRIP-LOC seam to attain greatest gripping action. Asbestoseal is Underwriters Grade asbestos sealed by silver-colored neoprene.



#### "DRILL-SCREWS"

Drill their own holes in metal!

Acclaimed by sheet metal workers coast-to-coast! Drill Screws are installed five times faster than conventional methods! All you need is a 1/4" electric drill and an inexpensive Drill Screw Chuck. Can also be driven manually. Write for samples and full details.



Super heavy construction of this new regulator and its wedge-lock action prevents damper rattle while it minimizes air leakage. New, eye-appealing design, easy-to-read and easy-to-adjust indicator dial.

\* PATENTED OR PATENT PENDING



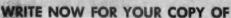
★ THE ORIGINAL AND MOST COMPLETE LINE OF REGULATORS, QUADRANTS AND DAMPER PARTS

★ PORTABLE SPOT WELDERS NOW WITH BUILT-IN TIMERS

★ NEW IA-11 ECONOMY FORMULA INSULATION ADHESIVE

★ BLADE KITS AND OPAX KITS FOR MULTI-BLADE DAMPERS

★ THE MOST COMPLETE LINE OF FLEXIBLE DUCT CONNECTORS



REE CATALOG

DURO-DYNE CORPORATION
Farmingdale, New York





## Cyclone Mockup Demonstrates Features

The intricacies of a well-constructed materials handling system are difficult to explain to prospects. To demonstrate the basic functions of hoods, piping and internal cyclone dust collector components and explain construction features, Joseph O. Ziegler, Ziegler Sheet Metal Co., St. Louis, uses a miniature cyclone collector which can be disassembled to show its internal construction.

The miniature demonstrator he and his sons, Kenneth and Warren, use was fabricated to scale to help the prospect visualize the exact shape and how it will appear when installed in his plant. To suggest installation arrangements and applications, the Zieglers use a portfolio containing many photographs of other customers' installations.

#### **Frame Impresses Prospects**

One feature of the miniature display that has proved effective in obtaining prospect approval for the proposals is the structural frame. Mr. Ziegler points out that the frame is designed not only to support the unit adequately, but also to provide protection against wind storms and to distribute the weight of the equipment over a wider area of the roof or wall.

Another advantage of the demonstration model in selling a specific collector is that the prospect can see what occurs within the cy-



SCALE MODEL OF CYCLONE COLLECTOR is effective sales tool for explaining functions of equipment to prospects. Demonstrator is disassembled and inspected by (1 to r) Joseph O. Ziegler and his sons, Kenneth and Warren, before taking it on a sales call

clone collector and realize that the internal construction must be matched carefully to the type of material handled so it will remove the maximum amount of material from the air and discharge a minimum of pollution to the atmosphere.

#### **Maintains High Velocity**

To the more technically minded prospect, Mr. Ziegler points out that material is separated from the air being handled most effectively when the cyclone diameter is designed to handle the volume required. In discussing the design of the collector, he mentions that he maintains as high an inlet air velocity as is practical, to keep the air stream in the unit at minimum

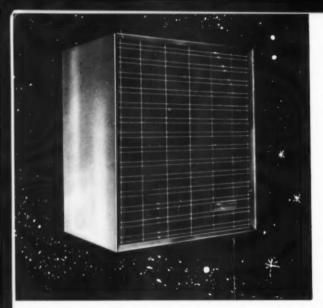
width, thereby achieving more overlapping vortexes. He also points out that the centrifugal force of separation is usually proportionate to the velocity of the air and that resistance to separation is a function of the radial distance the dust particle must travel to reach the cyclone wall plus its gravitational settling rate in still air and the length of time it takes centrifugal separating forces to act on the particles. The time of exposure to these forces and the number of convolutions of the dust path from the inlet to the dust outlet measures the unit's efficiency, he advises.

This approach has won Ziegler Sheet Metal Co. recognition as an authority in the area for blowpipe design and installation. JANITROL

presents a dramatically new achievement...

67 SERIES
GAS-FIRED
UNIT HEATERS

UNPRECEDENTED STYLING, PERFORMANCE AND DURABILITY TO
MEET THE MODERN TREND IN ARCHITECTURAL DESIGN



## FEATURES THAT MAKE ALL OTHER UNIT HEATERS OLD-FASHIONED!

New "sheer look" styling-Beautiful Phoenix Beige finish New gold-tone grille. Conceals louvers and draft hood opening . Low overall height . Automatic controls-Fully accessible · Factory-fired · Low Voltage Gas Controls-Standard . Low Voltage Sensitive Thermostat-Standard \* Limit control-interrupts control circuits and shuts off fuel if unit temperature becomes excessive . Thermopilot Shut-off. Shuts off all gas, including pilot, in event of pilot flame failure Automatic Pilot. Exclusive Janitrol low Btu. non-linting design \* Quiet air delivery. Acceptable for schools and other applications where conventional units are too noisy . Motor prelubricated for 5 years . Built-in Draft Hood. Removable, provides full access to heat exchanger. Protects burners from abnormal up or down draft \* Combustion air inlet. At bottom rear, through control enclosure. Controls constantly cooled by combustion air stream. Eliminates cross draft on burners Ampli-Fire Ribbon Flame Burners. No flame contact on metal. Removable, with non-linting air shutters featuring thumb-screw adjustment.

provide the ultimate in quality and economy

## ANITROL

### GAS-FIRED

#### commercial & industrial heating equipment

ALL NEW! JANITROL 67 SERIES UNIT HEATERS
FEATURING. . . STELLAR NEW STYLING, PERFORMANCE
AND DURABILITY!

New Janitrol 67 Series Unit Heaters are unusually handsome . . . incredibly quiet and efficient. They bring you, for the first time in unit heater history, distinctive appearance you can recommend for the smartest business setting. And they offer in even greater measure the traditional Janitrol quality and dependability in heating.

Their clean, crisp "look" is a departure from the crude, cumbersome industrial appearance of yesterday. Modern machine tools, trucks and structures have evolved as attractive, functional designs. And now, Janitrol sets the pace in unit heater styling!

The draft hood opening and adjustable louvers are concealed by the beautifully styled gold-tone grille. The rear combustion air inlet permits use of a solid bottom panel . . . eliminates any possibility of obstruction to combustion air intake.

Inside, design progress is equally significant. Yet every part is proven . . . every safety feature is included. Result? Performance no other unit heater can duplicate.

Naturally, the "heating heart" of every new Janitrol is the famous Janitrol Multi-Thermex heat exchanger with this unchallenged record for durability and low maintenance: among nearly three million heat exchanger tubes produced since 1940, replacements for all causes have run less than  $\frac{1}{4}$  of 1%.

Investigate the many exclusive advantages of Janitrol 67 Series Unit Heaters for jobs you specify or install. Let them help build your reputation for quality.

#### MEET EVERY COMMERCIAL AND INDUSTRIAL HEATING NEED FROM JANITROL'S BROAD LINE









#### GAS-FIRED DUCT-FURNACES

Install in a duct where air is circulated by separate blower. Adaptable for use with cooling. Two sizes: 200,000 and 300,000 Btu/hr, input—may be combined to provide capacity from 200,000 Btu/hr, up, in increments of 100,000 Btu/hr, input. Six sizes, from 50,000 to 225,000 Btu/hr, in Duct 55 models.

#### BLOWER-TYPE UNIT HEATER

Allows air delivery from greater heights and against greater static pressures. Models with exposed or enclosed blowers. A.G.A. approved as low and high static-type blower unit heater for air delivery to duct system up to 1.0 in. W.C. external static. Heat sections factory assembled. Sizes: 300,000, 400,000 and 500,000 Btu/hr. input.

#### FLOOR-TYPE UNIT HEATER

Cold air drawn from floor level is heated, filtered and discharged horizontally overhead. Quiet, clean, carefree—ideal for offices, restaurants, stores, labs, etc., requiring a compact unit.

#### HEAVY DUTY BLOWER HEATERS

For unit heating, central heating and air conditioning, Wide range of standard blowers and motors assures correct air delivery and temperature rise in each application. Factory assembled and tested. Capacities from 250,000 Btu to 1,750,000 Btu/hr. input.

### HORIZONTAL OIL

For suspension overhead. Saves floor space. Compact, efficient, low-maintenance design clean and quiet in operation. May also be used to feed duct system. Choice of sizes from 84,000 to 250,000 Btu/hr. output to meet all needs.

## helpful data for ARCHITECTS, CONTRACTORS AND ENGINEERS Write collect today for complete information on

Janitrol units for heating with clean, economical gas in buildings of every type. There's no obligation.

## ANITROL

HEATING AND AIR CONDITIONING

A Division of Midland-Ross Corporation
Columbus 16, Ohio • In Canada: Moffats Ltd., Toronto 15

Also Makers of Surface Industrial Furnaces, Kathabar Humidity Conditioning, Janitral Residential Heating and Cooling Equipment.

## There's a 3M Brand Adhesive or Sealer for every insulation need!



High heat resistance! Adhesive EC-1128 holds tight despite temperatures as high as 300°F; resists moisture so that steam can't loosen the bond. Even keeps its grip at -20°F. And EC-1128 provides both instant grip and long open time to let you do the job right! EC-1128 bonds foil-to-foil lapped seams, too.

Good coverage! Adhesive EC-104 provides unusually high coverage...quickly and easily...for greater economy. One pint covers up to 25 square feet when brushed on. If spray-applied, one pint covers 44 square feet. EC-104 gives you fast grip even when wet. And still...you get the convenience of long open time.



Nonflammability! Solvent-free Adhesive EC-321 won't burn during application—even near an open flame. You can apply insulation anywhere without fear of fire. EC-321 supplies a durable bond that resists high heat, moisture and vibration. It even bonds through thin oil films. Roll, brush or spray it on!

**High velocity systems!** Flexible Sealer EC-800 can be stretched twice its length before fracturing. It sets up firmly at duct joints, won't flow out of seams under pressure, yet it flexes with duct expansion and contraction. Actually adds structural strength to duct work. Apply with brush, flow gun or putty knife.



SEE WHAT 3M ADHESIVES CAN DO FOR YOU—Contact your 3M Field Engineer. Or, for more information and free literature telling how time-tested 3M Brand Insulation Adhesives and Sealers can help solve virtually all your insulation problems, write on your company letterhead to: A., C. & S. Division, 3M, Dept. SAJ-10, 900 Bush Avenue, St. Paul 6, Minnesota.

ADHESIVES, COATINGS AND SEALERS DIVISION

MINNESOTA MINING AND MANUFACTURING COMPANY



## **Are Advertising Claims Warranties?**

Manufacturers' published equipment capacities and other sales claims are subject to scrutiny by courts which traditionally overlook shaky claims that fall in the category of sales enthusiasm, but won't tolerate misrepresentations of products



A MANUFACTURER'S claims and prophecies about the performance of its equipment in its sales promotion to dealer-contractors are sometimes merely "sales puffs" — descriptions overcharged with enthusiasm and imagination.

As a federal judge once said of such zeal: "There are some kinds of talk which no sensible man takes seriously and if he does he suffers for his credulity. If we were all scrupulously honest it would not be so, but as it is, neither party usually believes what the seller says about his own opinions and each knows it.

"Such statements, like the claims of campaign managers before election, are rather designed to allay the suspicion that would attend their absence than to be understood as having any relation to objective truth."

#### Opinion or Falsehood?

Distinction between "forgivable" erroneous statements and those for which the manufacturer is liable for damages to a customer, is the distinction between mere opinions and falsehoods.

Recently in a suit brought by a dealer-contractor against a manufacturer in an eastern state it appeared that a major factor in the sale of equipment had been copies of magazine advertisements and a pamphlet that described in glowing terms the "advantages" of this equipment.

Exclusive features "far beyond competitive devices in the quality of manufacture, dependability and precision of operation" were offered the customer. "Precision unequalled in this type of equipment," and "mechanical excellence and operative dependability" were other claims.

#### Finds No Deceit

In a suit against the manufacturer for what the dealer-contractor claimed were fraudulent misstatements, the dealer-contractor failed to recover.

Said the court, "A careful examination of the matter contained in the advertising does not, in my judgment, disclose any statements of fact upon which an action for deceit can be founded.

"It is elementary that mere commendatory statements, called 'dealer's talk' or 'trade talk' are not actionable because these are generally regarded as mere expressions of opinion, not likely to be very strongly relied upon, especially where the parties deal upon equal terms. Of course the immunity from responsibility for such statements is not absolute and a number of recent decisions seem to go a considerable distance in cutting it down."

#### Is It Misrepresented?

On the other side of the legal boundary are misstatements of facts in describing goods offered for sale, which the customer relies on as truths. In these cases, the customer receives equipment which he did not agree to purchase.

In a boiler manufacturer's catalogue was the offer of a steam generator with a specified heating capacity of 7300 EDR steam per hour. A plumber sued the manu-

(Continued on page 132)

#### NO. 2 HOODED

Designed for sump applications where large valume and low pressure is required. Larger models available . . . carrasion resistant . . . easily installed.



#### 2-C-SPT

New, low cost condensate unit. Fully automatic . . . small, compact . . . silent operation. Available in sizes down to 4 ½ "x4 ½ "x8 ½".



#### NO. 2-C CONDENSATE UNIT

Small, compact condensate unit is the most economical and efficient on the market. Completely automatic . . silent operation . . . easily installed.



#### 2-V VAPORIZER

Little Giant vaporizer means economy. Corrosion resistant . . . never needs lubrication. For use in air washers . . . water washed paint spray booths . . . air cleaning devices . . . humidification of small green houses.



#### 2-SPB SCREENED BOX PUMP

Model 2-SPB is ideal for use around the home. Lightweight and portable, it can be installed anywhere seepage is a problem . . in the basement . . under the house. Also can be used in industrial applications.



#### 2-HBK HUMIDIFIER

Automatically controlled humidifier provides heating
installations with
effective means for
humidification.
Corrosion resistant
tank . . . optional
humidifier blower
and humidistat.



## ECONOMICAL TO OPERATE EASY TO INSTALL

All Little Giant Pumps are economical to operate and easy to install. Every pump is made to meet the most exacting requirements and is the ultimate in design and construction. A Little Giant can be applied to a variety of jobs where low pressure, high volume is required. LITTLE GIANT PUMPS OPERATE WHEN COMPLETELY UNDER WATER.

For additional information, prices and specifications, contact:

## Little Giant PUMP COMPANY

P.O. BOX 7025 . OKLAHOMA CITY, OKLA.



### ANNOUNCING

Another Quality
Little Giant Product
the GOODE
VERTICAL PUMP

Especially designed for evaporative coolers up to 4,800 CFM, the GOODE vertical pump, model GV-30, has the same quality workmanship and material as other members of the Little Giant line. Delivers 260 GPM with a maximum head of eight feet. 9"x3 9/16". For additional information, contact your dealer or Little Giant Pump Co.

## Weigh Published Capacity Claims Carefully

... is it a "sales puff" or a warranty?

facturer, contending that this statement was an express warranty that had not been met.

#### Relied on Misstatements

The court held that the customer "purchased this boiler relying upon the manufacturer's statement of its capacity. The unqualified statement of capacity constituted an express warranty under the sales act, which provides, 'any affirmation of fact or any promise by the seller relating to the goods is an express warranty, if the natural tendency of such affirmation or promise is to induce the buyer to purchase the goods.'" The court ruled in favor of the plumber.

On the cover of a gasoline engine manufacturer's catalogue was the headline, "Safe, Simple, Reliable, No Danger." Inside the pamphlet appeared the promises: "More economical than steam. More reliable than electricity. Does not require an experienced man to set up and start or a licensed engineer to operate. Always ready for use. No attention required before starting. When stopped, expense ceases."

The first day this engine was used it exploded. Upholding a purchaser's claim for damages, the court held that catalogue assertions were express warranties for which the manufacturer must compensate the purchaser in damages for the breach.

#### Warranty May Be Implied

The Supreme Court of a midwestern state commented recently on such advertising misstatements: "It was not requisite to the establishment of an express warranty that the words 'warranty,' 'guarantee' or other special or technical terminology be employed in the sale.

"Usually a warranty is thought of and often is a contract or express promise. But in addition to an outright promise or contractual obligation, a positive affirmation of a fact by the seller relating to the subject matter of the sale, may constitute an express warranty, if it induces the sale and the buyer relied upon it."

#### **Buyer Must Rely on Truth**

The rule that the purchaser is justified in relying on advertisements that are statements of fact and not mere opinions, is not new.

Many years ago a buyer succumbed to a statement in a manufacturer's catalogue that its wagons had no superior and probably no equal in the country, and the promise, "We warrant our wagons to be well made, of good, thoroughly-seasoned material and of sufficient strength to carry the weight mentioned in our catalogue." People who had inspected these wagons had branded them "no good."

Attacking the catalogue statements, the purchaser sued, and the court awarded damages against the manufacturer, observing:

"All the wagons were ordered upon the representations set forth in the catalogue and in the catalogue they were expressly warranted to be well made, of good. thoroughly-seasoned material and of sufficient strength to carry the weight mentioned in the catalogue. It is certain that the purchaser was induced by it to enter into the contract and there is no doubt she had the right to rely upon it."

#### 'Let Seller Beware'

Sustaining his right to a recovery, the state Supreme Court commented on such advertising: "It may be urged that this is a substantial modification of the old doctrine — let the buyer beware. Is it not high time however, that that doctrine should be somewhat modified — at least that it should have no higher place in the business life of the nation than the companion doctrine — let the seller beware?

"There is entirely too much disregard of law and truth in the business, social and political world of today. I am using this term in its broad sense. Constitutions, statutes, sound legal and ethical principles are becoming little more than mere scraps of paper, not only between individuals but among states and nations.

"It is time to hold men to their primary engagements to tell the truth and observe the law of common honesty and fair dealing. Such a change, in my judgment, would not be so much in the line of revolution, as in the line of reasonable reform. Honest men need not fear it. Dishonest men should be kept in fear of it."

[Note: While this discussion applies to actual cases, it should be remembered that legal rules vary in different states.]



YOUR "DOOR OPENER" TO NEW ACCOUNTS & REPLACEMENT SALES . . . a perfect tie-in with your present business!



The Kleen-Air "ONE MAN" Power Cleaner provides the fastest set-up time possible to complete 8 to 10 jobs daily. The unit is designed to work in crowded, congested areas where only one parking space is available.

In RAIN, SNOW, or SHINE you clean with Kleen-Air. There's POWER and CAPACITY for any job. Kleen-Air equipment is a perfect tie-in with your present business and a natural "Door Opener" to new customers and profits.

	and and
Kleen Air	Power
Micen in	Cleaning
	THE RESERVE OF THE PARTY OF THE

KLEEN-AIR INCORPORATED 215 NORTH MAIN STREET JANESVILLE, WISCONSIN

1	Please	send	literature or	Kleen.	Air P	Ower C	leanere	to

ADDRESS

## WHAT THE ASSOCIATIONS ARE DOING



GRADUATE GETS THE WORD on responsibilities of journeyman. Discussing meaning of graduation certificate are (I to r) Roy H. Nelson, Sheet Metal Contractors of Greater Chicago; Kenneth S. Zessin, graduating apprentice; James T. Tracy, Local 73; and William A. Kuechenberg, Ventilating and Air Conditioning Contractors' Association of Chicago

## Chicago Welcomes 60 New Sheet Metal Journeymen

Contractors, union stress responsibilities of 'graduating' apprentices

Chicago — Sixty new journeymen —10 more than last year—joined the ranks of sheet metal workers in the area served by Local 73 of the Sheet Metal Workers' International Union at the annual apprentice graduation dinner in union head-quarters. The ceremony and dinner are sponsored by the Chicago Joint Apprenticeship Committee for the Sheet Metal Trade.

Officials pointed out that while the number of new card-carrying members is impressive for its gain over previous years, it falls short by 31 of compensating for the number of deaths and retirements within the local during the past year. Emcee James T. Tracy, secretary-treasurer of Local 73 and secretary of the joint apprenticeship committee, said this net loss increases the responsibilities of each new journeyman for good craftsmanship. He reminded the graduates that the end product of their efforts is an intangible-comfort-which cannot be held up for the applause of their employers or customers. The reward for their accomplishments, he continued, is pride in a job well done-a gratifying reward for a conscientious craftsman. He outlined a three-point check-list for the responsibilities of a sheet metal mechanic: 1) know how to install each component so the highest peak of performance can be achieved; 2) know what his work does and what part it plays in the

end product; 3) work efficiently with minimum waste.

William A. Kuechenberg, chairman of the joint arbitration board, pulled a switch by asking all the graduating apprentices to stand and receive the applause of the speakers

(Continued on page 141)



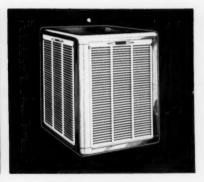
TRADITIONAL DINNER precedes apprentice graduation ceremony at union headquarters. Speakers, apprenticeship committee members, contractors and union officials got graduates off to a good start by advising them of their responsibilities for maintaining high standards established by their predecessors



WINDOW AIR COOLERS for double-hung or casement window installation. Capacities through 5,000 CFM.



TOP OR CENTER HORIZON-TAL DISCHARGE COOLERS for residential wall or roof mounting. Capacities through 6 500 CEM



DOWN DISCHARGE COOLERS for residential roof installation. Capacities through 6.500 CFM.

## ARCTIC CIRCLE air coolers

Cost Less

to buy to install

to operate

#### FOR EVERY TYPE OF BUILDING

Residential, commercial, industrial-Arctic Circle Evaporative Air Coolers provide the most efficient and economical method of supplying clean, fresh air, cooled to just the right temperature. Quality-constructed by the world's largest manufacturer of evaporative coolers, Arctic Circle coolers offer more years-ahead features that mean superior cooling performance at the lowest cost.

Write Today For Complete Information!

ARCTIC CIRCLE COMMERCIAL and INDUSTRIAL coolers provide efficient, low-cost cooling for large buildings-factories. stores, schools etc. Horizontal or down discharge models in capacities from 7,500 to 15,000 CFM.

World's Largest Manufacturer of Evaporative Air Coolers

#### ON EXHIBIT

**HEATING** and AIR CONDITIONING EXPOSITION

February 1-4, 1960

Memorial Hall, Dallas, Texas **BOOTHS 602 & 604** 

INTERNATIONAL METAL PRODUCTS DIVISION

McGraw-Edison Company
Phoenix, Arizona 500 S. 15th St.

## Bull Discusses Trade Practice Rules At Meeting of Southeastern Wholesalers



TRADE PRACTICE RULES are clarified for wholesalers serving the Carolinas area. From left are {seated}: Ham Godwin, Southernair Co.; H. F. Haag, The Coleman Co., Inc.; Paul Brown, Paul Brown Distributors; Bruce O. Leister, Metal Service Corp.; Fred A. Mayhew, Metal Service Corp.; Robert Osborn, American Artisan; J. D. Johns, Noland Co., Inc.; C. A. Hummel, Raymond Supply Co.; Gene Brown, Carolina Heating & Appliance; J. Orville Garrett, Loman-Garrett Co.; J. Partington Jr., General Equipment Co.; Ben Carter, General Equipment Co.; R. W. Allen, Atlas Supply Co.; Carl Kissiah, Carolina Heating & Appliance Co.; B. F. Rogers, Tomlinson Co., Inc.; and W. B. Tomlinson, Tomlinson Co., Inc. Standing are Dick Givens, Southernair Co.; Frank Muehler, Carolina Conditioners, Inc.; Wilbur Bull, NHAW; Louis Glascock, Glascock Distributing Co., Inc.; and Al Ross, Gas Heat Engineering

CHARLOTTE, N. C. — Members of the Northamerican Heating & Airconditioning Wholesalers in the southeastern trading area met recently to hear a discussion of trade practice rules presented by Wilbur R. Bull, NHAW executive director. Mr. Bull stressed the following points: 1) interpretation and application of each rule; 2) rules most frequently violated; 3) recent action of the Federal Trade Commission against violators; 4) how to do business and "stay legal"; 5) disturbing distribution

### Minnesota Sets Up Program Committee

MINNEAPOLIS — E. Belisle, Sheet Metal Specialty Co., St. Paul, has been named to head the program committee for the annual convention of the Sheet Metal and Roofing Contractors' Association of Minnesota, which will be held Feb. 12-13 at the Hotel Lowry, St. Paul. Working with him are Roger Meyer, Dayton's Bluff Sheet Metal Co., and association president Bob McPhillips.

practices of some manufacturers and so-called wholesalers; and 6) how to report a violation.

Gene Brown of Carolina Heating & Appliance Co. served as chairman of the meeting.

### Fox Elected At Kalamazoo

KALAMAZOO, MICH. — Nelson Fox, Nelson Fox Heating Co., was elected president of the Kalamazoo Heating & Air Conditioning Association at the group's recent annual election meeting. Other officers elected for 1960 are: Lyle Buttery, E. M. Sergeant Fuel Oil Co., vice president; John J. DeHaan, DeHaan Heating & Roofing Co., treasurer; and E. J. French, Kalamazoo Heating & Appliance Co., secretary.

## Merchandisers Get New Constitution

ROCHESTER, N. Y. — The Merchandisers Association, auxiliary to the New York State Sheet Metal, Roofing and Air Conditioning Contractors' Association, has published its constitution and by-laws showing recent revisions. According to Article II of the new constitution, objectives of the Merchandisers Association are:

1) to unite into one organization

(Continued on page 148)

## Survey Members, Non-Members To Guide Future Activities

SOUTH BEND, IND. — The St. Joe Valley Furnace and Sheet Metal Contractors' Association is using a different approach in serving its members and in publicizing the value of association membership among nonmembers. A questionnaire was recently sent to all members asking for their unbiased opinions on the way the association is being managed, and their answers will be used for guidance in planning future activities. Twelve questions were asked, many of which could be answered with a Yes or No check mark.

Members were asked to indicate their preference on such points as subjects to be covered at meetings (sales, technical, management, estimating, etc.); frequency of meetings; time and place of meeting; and type of service (beverage, food, etc.). They were also asked to comment on dues, types of committees needed, and functions expected of the association.

Non-members, who also received a questionnaire, were asked to answer seven questions dealing with dues structure, place and location of meetings, types of meetings, and services they would expect from an association in which they held membership.

Results of the questionnaires will be tabulated and evaluated and action will be taken in those areas where the need is indicated.

(More association news on page 141)



SEE HOW INTERNATIONAL'S NEW "CLIMATE OF BEAUTY" MAKES MORE DOLLARS AND SENSE FOR YOU! for 6



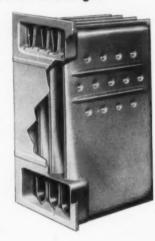
## **WORKS!**

#### "SECTIONAL" A Really Proven Exchanger

Both burner box and flue collector are die-formed to eliminate possibilities of ticking caused by welded joint stresses and warpage. Elements have pressed fit into boxes in punched and extruded openings - allowing edge weld to prevent warpage and relieve stresses. Front barrier has expansion joints between burner box and flue collector box to prevent ticking and tearing of metal in heat exchanger. Flame-shaped lower sections set up a controlled turbulence pattern for maximum heat transfer.

#### NEW BURNER DESIGN

Flame spreader design shapes flame to match exchanger wall contour. Features stainless inserts to deflect foreign material, keep ports clean, clog-free. Sure-fire burner to burner Cross-Over ignites at exceptionally low pressure.



#### "WRAP-AROUND" EXCHANGER - Of Course!

You know from experience that no other built-for-oil exchanger can touch this one. It provides the most compact and efficient design for given heat output . . . eliminates noisy expansion and contraction clang . . . is easy to clean and keep clean. Electrically welded, gas-tight - with no trouble-causing internal baffling. These are real telling and selling points with prospects.

#### FLAME SENSING **ELEMENT**

A "safety-first" that makes your selling job easier. Minneapolis-Honeywell flame detector element, pre-installed in burner tube, is wired to Relay in Junction Box. Replaces bothersome "stack" mounting.



## FIBERFRAX COMBUSTION CHAMBER...From Jet Research

Developed for use in jet exhaust systems, the Fiberfrax material in International combustion chambers withstands temperatures to 2300 degrees F! Provides overall protection for steel chamber wall against damaging flame impingement. And it's quiet — effectively muffles any combustion noise. A strong selling point with your prospects!

## LOOKS!



## **PLUS!**

these features that help vou sell · · ·





... speaks softly... but is loaded with

## SALES DYNAMITE

for you!

## CAN DO!

It's a fact that your customers can sometimes be unreasonable in their demands, when it comes to installation. With International, you can always answer with complete confidence: "Can do!"

Thanks to International's engineering excellence, you get equipment that's carefully designed to anticipate your installation problems. In short, you get more to work with, so you have less work to do—whether selling or installing i

#### EASIER INSTALLATION

The new all-assembled International models are designed with burner, blower, controls and wiring inside cabinet — to permit easy fitting, time-saving installations just about anywhere.

#### HONEST-TO-GOODNESS FACTORY PRE-WIRING

To save you even more installation headaches, these new assembled models are shipped with ALL internal wiring and controls connected to the junction box...even including the burner and blower.

#### COMPLETE CUSTOMER SATISFACTION

International's big new line for '60 makes matching the right unit to the customer's need a breeze. Game room, basement or living room—gas or oil—there's an International model to fit each requirement exactly. All this, plus a full Twenty Year Warranty backed by the heating industry's most experienced company—is bound to open more prospects' doors, build more profits for you in the years ahead!

For further information see your Distributor . . . or write for colorful new Catalog today!



The new International is proof that the best things come in small packages — and this time it's a high style, highly sellable package. All our new assembled Lo-Boys Hi-Boys and Counterflows (both gas and oil) are full vestibule models. Compact, ultra-sheer cabinet conceals all components, controls and unsightly wiring inside, to give your customers more room to plan — give you more freedom and room to work on every installation. More proof that the "Climate of Beauty" can do a bang-up selling job for you in 1960!

#### FOR OIL

- Units carry U.L. Label
- Burner, Blower, Fan and Limit, Primary Sensing Element wired to Junction Box
- Burner shipped mounted
- Performance exceeds U.S. Commercial Standards

#### FOR OIL AND GAS

- Units operate against high static
- New lowness, smaller size, greater adaptability

INTERNATIONAL HEATER CO.

UTICA, NEW YORK

COOLING PLENUMS For Domestic Applications



**3** to 1⋯

you can sell more cooling the INTERNATIONAL way

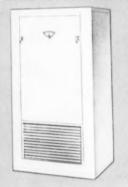
HORIZONTAL UNIT COOLERS For Home, Light Commercial Use



INTERNATIONAL'S Versatile Compressor Unit Is the Key!



COMMERCIAL HI-BOY STORE UNIT



For all domestic and most light commercial applications - just match the right combination and you're in business!

Now you don't have to let any of your cooling prospects get away. With International, you can quickly match cooling to any prospect's specific needs. It's simple and easyand the smart way to cash in on the booming market for summer air conditionina!

For one thing, International brings you a complete cooling line that's competitively priced and as easy to install as 1-2-3. For another, you're safer selling International of Utica, because International's reputation for engineering whole house comfort is unsurpassed . . . since 1842.

Pick a winner! See your International Distributor—or write for our catalog today.

**SINCE 1842** 



INTERNATIONAL HEATER COMPANY, UTICA, N.Y.

And for the booming market for self-contained summer air conditioning



COMPACT HORIZONTAL UNIT

INTERNATIONAL'S Easily installs in attic or crawl spaces; may also be installed in basement windows, or store transoms. But be sure to list it as one of your cooling musts - because new installation applications for it are opening up every day!

### **ASSOCIATIONS**

#### Welcome Journeymen Into Sheet Metal Field

(Continued from page 134)

and guests. He identified the labormanagement relationship as a twoway street on which progress can be made only with mutual respect for each others' destinations. He congratulated the union officials for their thoughtfulness and appreciation of management problems during his term of office and cited the leadership of Local 73 President A. H. Cronin in reviewing the harmonious relationship during the history of the joint arbitration board.

Mr. Cronin returned the compliment to management representatives, in behalf of the apprenticeship committee officers and the union, congratulating the committee on its dedication and efficiency in handling labor problems. He pointed out that Local 73, serving Cook and Lake Counties, Illinois, is the largest local in the international union.

#### 'Use Committee's Services'

Guest speaker Earl J. McMahon, president of the Chicago and Cook County Building and Construction Trades Council, told the new journeymen, "It's within your power to make a lot of people happy" by striving for personal improvement which adds to progress of the industry and its relationships with its customers. To accomplish this goal, he said, workers must take advantage of the services offered by the apprenticeship committee, whose function it is to pass along industry developments, traditions and experiences to the workers. He advised the graduates that collective bargaining is the only good force to assure the exchange of adequate and accurate information. With it, he said, "we travel under the banner of mutual trust and understanding."

Mr. Tracy introduced contractormembers of the committee, business

(Continued on page 144)

### Ask Your Air Conditioning Equipment Manufacturer for -

#### THE ORIGINAL LIGHTWEIGHT "PATENT APPLIED FOR." LIQUID CHARGING CYLINDERS FILLED WITH REFRIGERANT 22

Stock sizes in REFRIGERANT 22 capacities of: 50lb. - 25lb. - 15lb.







Air conditioning equipment manu-facturer's brand name and no. shown on label.

Convenient for liquid charging (as shown) as well as gas charging (in standing position).

Stack conveniently to save

- · RIGID MOISTURE AND QUALITY CONTROL
- · Blue Plastic seal on valve outlet is your assurance of maximum dryness quality
- · Seals are printed "MAXIMUM DRYNESS-FACTORY SEALED."
- SAVES LABOR & MATERIAL LOST WHEN RECHARGING CYLINDERS
- Saves gas left in recharging cylinders and saves losses due to leaky valves and damaged threads from continued use of present small cylinders.
- EASY TO HANDLE lightweight, small cylinders with built-in hand grips. (50 lb. size only 22 lb. empty.) Convenient for carrying up ladder. 50 lb. size saves extra trips back to replace when empty.
- NO HOOD CAPS TO LOSE Valve protected by permanent collar.
- STACKING RINGS SAVE VALUABLE SPACE
- Valve protection collar also serves as stacking ring. Uniform ring on all sizes enables mixed stacking.
- · CAN BE USED IN BOTH UPRIGHT POSITIONS
- Equally convenient for gas or liquid charging.
- No mounting blocks necessary
- NO VALVE WRENCHES NEEDED Handwheel already on cylinder valve.
- · STANDARD FITTING ALREADY ON VALVE
- Sturdy cylinder valve complete with flare nut ready for charging connection to standard 5/16 O.D. tubing. Also adapter to fit 1/4" charging hose supplied at no charge.
- YOU CAN DELIVER AIR CONDITIONING SYSTEM COMPLETE WITH FULL REFRIGERANT CHARGE ANY TIME OF THE YEAR NO FREIGHT OR DEPOSIT PROBLEMS ON CYLINDERS
- Prices include freight on full cylinders and on return of empties.
- No cylinder records needed—deposit of \$12.00 each for all three sizes of cylinders refunded regardless of cylinder number.

ASK FOR THE BLUE CYLINDER WITH THE PROTECTING STAND RING -THEY FIT ON PORTABLE BATHROOM SCALES IN LIQUID CHARGING POSITION FOR WEIGHING IN CHARGE

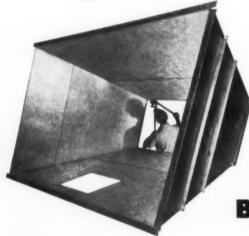
Air Conditioning Equipment Manufacturers Send Inquiries to:

1107-21 NORTH HOWARD STREET PHILADELPHIA 23, PENNA. Patent Applied For



## Bethcon Galvanized Steel

forms easily, builds strong product



When you flex a piece of Bethcon galvanized sheet steel, you notice it has a certain extra "something." Liveliness, if you will. Toughness, perhaps. Or strength with ductility. Whatever you might call it, Bethcon is a sheet that forms up easily, builds a strong end product.

There's a sound metallurgical reason for Bethcon's unique qualities. Our continuous galvanizing lines include a special annealing cycle which gives the steel its very desirable combination of ductility and stiffness. In addition, the galvanizing process deposits the zinc on the sheet so tightly that even the toughest forming and bending will not crack the coating.

You can specify Bethcon in a wide variety of gages and widths, coiled or in cut lengths. The base metal can be either plain open hearth steel or copper-bearing (Beth-Cu-Loy). A Bethlehem representative will be glad to supply further information.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast
Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL





Flogler "24" Junier



Flagler Heavy Duty Model "20" and "22"

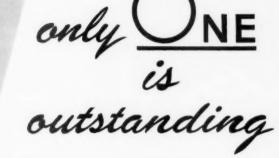


Flagler "22" and "24" Portables



Model L-57 th Outboard Support





IN THE SHEET METAL ROLLING MACHINE FIELD ...

lagler

Known Everywhere For Superior Customer Service.



Flagler New High Production nation Roll, Crimp and Boad Machine







Model D-H 4-10









"My Goal For 1960 . . .

Better Machines Than Ever!"

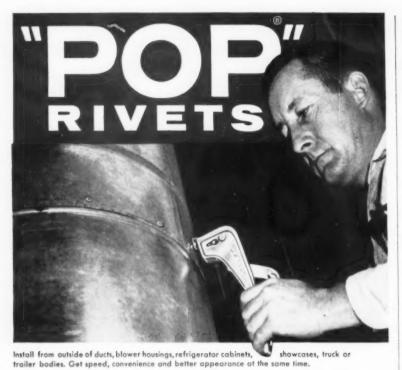




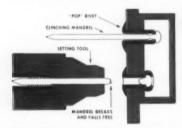


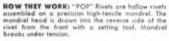
Corporation

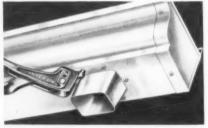
19321 FILER AVE. DETROIT 34, MICH



- Terrific time saver for fastening ducts, gutters, signs, roofs, vents, and metal enclosures
- Installed and set from the same side







QUICK FASTENING of aluminum downspout with "POP" Rivets. Also fasten butt ends of gutters, eave tubes, end caps, supports, siding, awnings, jalousies, etc.

No other fastener equals the speed and convenience of "POP" Rivets! Sheet metal shops are cutting their fastening time over 50%, and getting a better job at the same time. Low cost setting plier is the only tool needed.

Use "POP" Rivets either in the shop or on the job with the same convenience. Merely drill or pierce a hole, insert the "POP" Rivet and set it from the same side. Perfect for fastening ducts from one side without worrying about fastener stripping or trying to assemble a fastener from 2 sides. Works on sheets as thin as .020 dead soft aluminum without distortion.

Join other sheet metal shops in cutting fastening time. Thousands of users have told us that "POP" Rivets are the greatest fastener ever developed for saving

greatest fastener ever developed for saving time, improving quality, and for outright convenience. Call or write us today for sizes, prices and the name of your nearest supplier.

UNITED SHOE MACHINERY CORPORATION
SHELTON, CONNECTICUT

REgent 5-3391



### **ASSOCIATIONS**

#### Sixty SM Apprentices Complete Training

(Continued from page 141)

agents of the local, Washburne Trade School instructors and other guests, each of whom passed along a word of advice to the graduates. Mr. Cronin awarded certificates of completion of apprenticeship and lapel buttons to each new journeyman.

The joint apprentice committee is comprised of representatives of Local 73 and three contractor associations serving the Chicago area: Ventilating and Air Conditioning Contractors Association of Chicago, Sheet Metal Contractors of Greater Chicago and Air Conditioning Contractors' Alliance.

### Georgia Group Publishes Weekly Newsletter

ATLANTA, GA. — The Sheet Metal, Roofing, Heating, Air Conditioning Contractors' Association of Georgia is now issuing a weekly newsletter which will be sent to suppliers as well as dealer-contractor members. According to B. L. Noblitt, executive secretary, the newsletter will be prepared each weekend, placed in the mail on Monday, and should be received the following Wednesday.

### California Cities Observe 'Indoor Comfort' Week

San Francisco — "Indoor Comfort Week" was recently observed in northern California, according to Dar Knowles, executive manager of the Warm Air Heating Institute of northern California. As part of the program, the institute's theme girl, "Miss Indoor Comfort," made a good will tour of northern California cities,

(Continued on page 148)



Take a close look at Air-Jet Gas Vent's new Snap-Fast interlocking action . . . strictly from your point of view.

Notice the installation time it can save you. Simply snap two sections of pipe together . . . they lock securely. Yet pipe is easily dismantled without damage. A counter-clockwise twist is all it takes.

Snap-Fast is the newest addition to Air-Jet's complete line of oval and round gas vent and fittings.



#### PLUS THESE NEW AIR-JET GAS VENT FEATURES:

- Double strength exclusive curled end design makes Air-Jet the most rugged gas vent available.
- UL Approved Housings Air-Jet's handsome decorative housings are UL approved for use with gas venting.
- Completely Interchangeable New Snap-Fast gas vent is completely interchangeable with Air-Jet friction joint gas vent.

That's the story of Air-Jet Gas Vent's time and money saving new features. Now — strictly from your point of view, isn't Air-Jet your best buy?

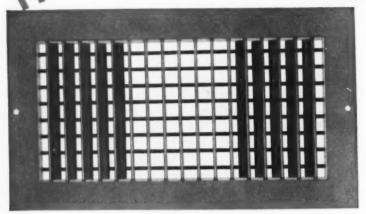
See Your Air-Jet Wholesaler or Write for New Gas Vent Brochure



#### GENERAL PRODUCTS COMPANY, INC.

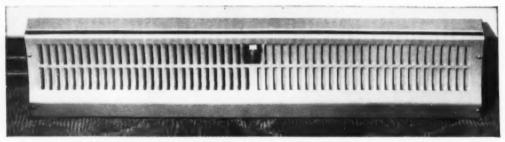
DEPT. G-1 FREDERICKSBURG, VIRGINIA

# MIDCO EXCELS IN PERIMETER REGISTERS



with a high styled line in sizes to meet every need.

No. VHD THERMOFLEX COMMERCIAL REGISTER AND GRILLE. A register that does everything better. Is aero dynamically correct with 11/16 inch adjustable vanes that give positive control of throw and flow.



No. 900 OPEN TOP BASEBOARD DIFFUSER. With the grilled front which delivers air to left and right and more air than any other diffuser of similar size. Lengths 17, 24, 30 and 36 inches. Also made with closed top.

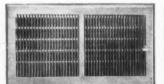


No. 512 PERIMETER FLOOR REGISTER

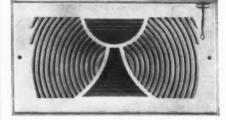
Sizes:

146

 $2^{1}/_{4} \times 10$   $4 \times 10$   $6 \times 10$   $2^{1}/_{4} \times 12$   $4 \times 12$   $6 \times 12$   $2^{1}/_{4} \times 14$   $4 \times 14$   $6 \times 14$ 



No. 30 1/4" VERTICAL FIN SIDEWALL DIFFUSER Comes in any size from 6 x 4 up. Also made with 1/2" vertical fins in similar sizes.



No. 800 SIDEWALL PERIMETER DIFFUSER

The most efficient and attractive sidewall perimeter register on the market, with volume adjustment control and furnished in 10" x 6", 12" x 6" and 14" x 6". Patent No. D179-140.

#### JOBBER HELPS THAT MAKE SALES

Midco's Jobber Merchandising plan is unsurpassed and some good areas are still open. Jobbers write at once for full particulars.





# GAIN More SATISFIED CUSTOMERS WITH THE ADDED APPEAL OF Quality-Assured GM DELCO HEATING-COOLING

#### COMPACT, TOTALLY ENCASED UNITS

adapt ideally to attractive closet installations, saving your customers valuable floor space.

A NATIONAL BRAND PRODUCT, advertised and distributed coast-to-coast is more readily accepted by your customers.

FACTORY TRAINING ON INSTALLATION AND SERVICE available for your personnel.

#### AN ENGINEERED LAYOUT SERVICE

for your project applications that assures the most efficient size unit for every heating and cooling installation.

BACKED BY GENERAL MOTORS REPUTATION, a world-renowned name for quality products.

#### YOU HAVE MORE TO SELL

with the complete line of Delco furnaces, boilers, water heaters and air conditioners.

You'll do better with Delco.



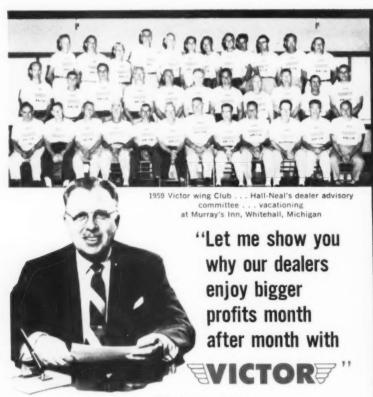
Take advantage of national brand product acceptance. Eliminate any uncertainty about the comfort of your customers in any climate by

using General Motors-Delco Heating and Air Conditioning. Write, wire or phone for more details.

### DELCO APPLIANCE DIVISION

Rochester 1, New York

GENERAL MOTORS CORPORATION



FRED BOONE, President
Hall-Neal Furnace Co.

"Our dealers enjoy sales tools that really sell. And, more important, we give you a product that is quality engineered and designed to sell without cutting prices . . . and your profits! We offer a complete line of Victor oil, gas and coal furnaces plus air conditioning systems, electronic air cleaners and water heaters to handle any problem. In addition, we give you prompt delivery and personalized service plus the same hearty cooperation which has been building real friendship among our dealers for over sixty years."

Prove up to 30% fuel savings with this easy table top demonstration

This dramatic table top demonstrator closes sales fast while it demonstrates Victor quality. Illustrates visually how Victor fins increase efficiency and cut fuel bills up to 30%. Seeing is believing . . . prove Victor quality and economy with this five minute demonstration!



Start building profits now . . . write, wire or phone me today!

HALL-NEAL	Fred Boone, President, HALL-NEAL FURNACE CO. 1322-42 No. Capitol Ave., Indianapolis 7, Indiana
FURNACE CO.	Please send me proof of bigger profits with a Victor franchise.  Name
Quality Furnaces Since 1890	Address
1372-42 N. CAPITOL AVE.	City
INDIANAPOLIS 7, INDIANA	Zone State

#### **ASSOCIATIONS**

#### 'Indoor Comfort' Week Publicizes Heating

(Continued from page 144)

meeting with mayors, chamber of commerce officers, building officials and others to call attention to the need for prewinter home checkups in each locality. Arrangements were made to photograph "Miss Indoor Comfort" with city officials and local warm air heating dealer-contractors at each stop.

#### New Constitution For Merchandisers

(Continued from page 136)

those persons who are engaged in merchandising materials, equipment, advertising or services to the sheet metal, roofing and air conditioning contractors of New York state; 2) to formulate standards, principles, and a code of ethics for the conduct of business with these contractors: 3) to act as a central agency through which will be cleared information, suggestions, grievances and other such matters as may promote harmony and good will and the best interests of both associations and their individual members: 4) to aid in the advancement and expansion of the sheet metal, roofing and air conditioning industries in all their markets, for the greatest welfare of these industries; 5) to encourage equitable legislation and public support for these industries; and 6) to promote the use of sheet metal, roofing and air conditioning material of domestic manufacture.

### Pennsylvania Works On Convention Program

AMBRIDGE, PA. — The program for the 1960 convention of the Sheet Metal, Air Conditioning and Roofing Contractors' Association of Pennsylvania is based upon requests submitted by the group's board of di-

(Continued on page 152)

### AN INVESTMENT IN COMFORT with the LOW SILHOUETTE Colt ventilator weighs 40 lbs.. provides maximum capacity or its size. Competitor weighs 350 lbs. for same extraction capacity as Colt.

Installation of Colt SR Ventilators, DRAY Manufacturing Company Inc. Downey, California.

New COLT O/SR NATURAL GRAVITY VENTILATOR

VENTILATION OF AMERICA. INC.

4652 Hollywood Boulevard . Los Angeles 27, California . NO 2-1181

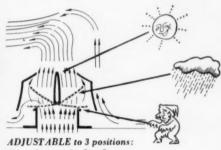
### **SPECIFY** COLT

Improved employee comfort invariably leads to more production and bigger profits. Now the new Colt O/SR natural gravity ventilator adds a full 25% more extraction capacity-without motors or running costs. Get the Colt story today!

AIR FOIL DESIGN reduces drag and produces maximum extraction rate.

> FITS ANY ROOF with unobtrusive low silhouette, in skylight pane or rectangular hole on any size roof.

LIGHTWEIGHT, of anti-corrosive aluminum alloy, no strain on roof,



(1) wide open for hot days,

(2) partially open for normal days,

(3) fully closed for cold days.

RAINPROOF in normal or closed positions.

#### MAIL THIS COUPON TODAY FOR NAME OF DISTRIBUTOR NEAREST YOU

Colt Ventilation of America, Inc. 4652 Hollywood Blvd., Los Angeles 27, California

Please: Send name of distributor nearest me ☐ Send Free Technical Manual

Send Free Brochure "Some Aspects of Fire Prevention in Industrial Buildings by M. J. Reaney

☐ Ask Representative to Call

NAME, TITLE\_ COMPANY ADDRESS \_

TELEPHONE

# NEW IN 1960

### 

### LEVER-LOCK TAKE-OFF

No longer necessary to reach in — thru the fitting. Simply snap the lever to install or remove the take-off.



1. Set dividers to radius measurement of center punch marks. Scribe circle and cut hole.



2. Release inner collar to an open position by lifting outside Lever.



3. Hook fitting into opening. Snap Lever down, which locks the fitting firmly in position.

#### ROUND FITTINGS WITH LESS AIR-FLO RESISTANCE FOR GREATER EFFICIENCY

Inquire Today About:

**Snappy Side or Top Take-Offs** 

**Snappy Universal Take-Offs** 

**Snappy Lever-Lock Take-Offs** 

Snappy "A" Collars

**Snappy Connectors** 

**Snappy Pipe Hangers** 

**Snappy Dampers** 

SAVE WITH

SNAPPY products are stocked by all leading Jobbers throughout the United States and Canada.

"FOR YOUR FREE LEVER-LOCK TAKE-OFF"

See your jobber today or write to

SNAPPY, INC.

**Detroit Lakes, Minnesota** 

Use Snappy For Economy with Quality

## Sell Climate by Chrysler



Dealers who sell Chrysler Air Conditioning . . .

### know the future!

What would you like to know about your future in the air conditioning business? Interested in whether your present line will be the most profitable? Curious if its manufacturer will still be in business two years from now? Wondering if you'll have the flexibility and competitive advantages to close extra sales?

If you sell Chrysler Packaged Air Conditioning and Heating, the answer to these and other questions vital to your business is an emphatic "Yes!" And, if you are interested in knowing how we can be so positive about it, send for your copy of the booklet, "It will pay you to take a long look ahead . . . with Chrysler Airtemp."

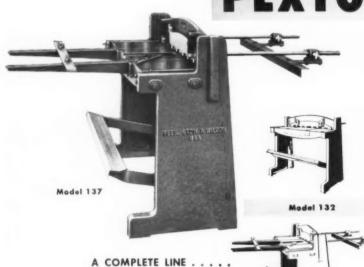
If you can't wait for the mailman to deliver it, call your local Chrysler Distributor. He'll be delighted to answer all your questions about your future with Chrysler.



Airtemp Division, Chrysler Corporation, Dept. N-10, Dayton 1, Ohio Please rush me a copy of the "Long Look" Booklet.

### BEST FOOT SHEARS

PEXTO

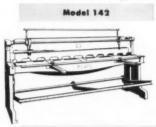


Long accepted in the sheet metal industry as a trademark of proven dependability, PEXTO foot squaring shears are known for long life operation with maintained precision accuracy. Ease of operation is built into these machines with exclusive PEXTO features and manufacturing techniques are held to high standards.

Rugged and versatile these foot shears will perform perfect shearing operations on corrugated materials, fiberglas, sheets and plastics as well as shearing squared blanks from sheet metal up to 16 gauge metal. Several models and sizes to choose from offering a wide range of cutting sizes.

Yes, PEXTO Foot Shears are Precision built for Precision work, offering low first cost and dollar saving operating cost.

Get complete facts by asking for Bulletin No. 157.



Model 194



(Gap Shear) Model G52

THE PECK, STOW & WILCOX CO. Southington, Conn. U.S.A.

A complete line of machines and tools for Sheet Metal Fabrication.

#### **ASSOCIATIONS**

#### Pennsylvania Convention Committee Plans Program

(Continued from page 148)

rectors. Subjects scheduled for discussion include the Silver Shield program, dealer-supplier coordination, residential and small commercial air conditioning, public relations, business management, light and heavy sheet metal work, and pit-falls of taxation.

Serving on the convention committee are Frank Coleman and John Henke, co-chairmen; Clifford Fowler and Gib Reed, reception; Max Davis and Neal Coleman, transportation; Jack Trost and Clarence Krack, entertainment; and Oscar Neth, caterer.

#### South California SM Association Elects Hodge

Los Angeles — Marlowe C. Hodge was elected president of the Sheet Metal Contractors Association of Southern California at the group's recent annual meeting. Edward



Marlowe C. Hodge

Banks was elected vice president and H. D. Shaner secretary-treasurer. Mr. Hodge, president of Hodge Sheet Metal Works of Los Angeles, has served as a member of the board of directors and as vice president of the association. He is a director of the Sheet Metal and Air Conditioning Contractors' National Association.

#### ASSOCIATIONS

#### Milwaukee Group Conducts Warm Air School for Dealers

MILWAUKEE - The Sheet Metal Contractors Association of Milwaukee is now conducting a school for warm air heating and air conditioning dealer-contractors at the Milwaukee School of Engineering, Ninety dealer-contractors are attending the school, which will run for 12 weeks. Two classes are held each week, one on Mondays and one on Wednesdays. Registration fee is \$35 which includes the working kit that is purchased from the National Warm Air Heating and Air Conditioning Association. Secretary R. S. Schmieder of the Milwaukee association points out that if a Silver Shield program is conducted in the Milwaukee area. all dealer-contractors who wish to participate will be required to complete the training course or must qualify by passing the final examination that will be given.

#### 'Aims and Activities' Discussed at Detroit

DETROIT — "What Should Be the Aims and Activities of the Association?" was the question discussed at a recent meeting of the Detroit Heating and Air Conditioning Association. Participating in the panel discussion were Clifford Andrus, representing the City of Detroit; Ed Behm, representing a utility; Blaine Lytle, representing the wholesalers; Roy Snypp, representing the associate members; and Doug Hemelberg, representing the dealer-contractors. Orville Lobb was moderator.

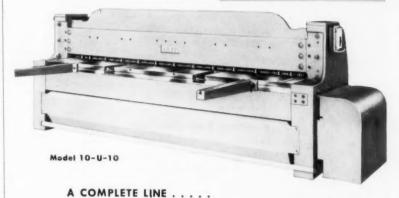
Another recent meeting featured a discussion of electronic air cleaning as an added profit source. David S. Falk, David S. Falk Co., pointed out that many dealer-contractors sell electronic air cleaners by explaining how they reduce housework.

(Coming Events on page 154)

#### FASTER, MORE EFFICIENT

#### SHEET METAL POWER SHEARS

by PEXTO



Outstanding in every detail these Precision Power Squaring Shears are engineered and built to shear sheet metal accurately and continuously at full rated capacity.

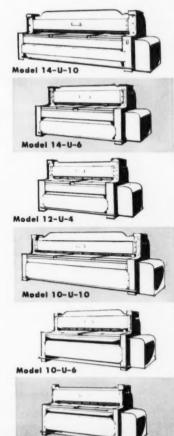
Frame, bed and crossheads are made from high grade machine tool castings. Positive, self-compensating holddowns; precision gauging and built-in blade clearances provide clean accurate cuts.

PEXTO Power Shears are designed for long-life maintenance-free operation. Six models efficiently and accurately handle any shearing problems from light gauge through 10 gauge sheet up to ten foot capacities.

#### SHEAR BLADE SERVICE

PEXTO four edge blades are precisionmade from the finest domestic steel and will give maximum life and accuracy. When sharpening is required, fast factory service is available, enabling you to have new blade performance at all times.

Ask your Distributor or send for Bulletins 57 and 60.



THE PECK, STOW & WILCOX CO. Southington, Conn. U.S.A.
A complete line of machines and tools for Sheet Metal Fabrication

Medel 10-U-4

#### **Coming Events**

#### January

Jan. 31-Feb. 3 — New York State Sheet Metal, Roofing & Air Conditioning Contractors' Association, annual convention. Hotel Stuyvesant, Buffalo, N. Y. Clarence J. Meyer, secretary, 567-569 Genesee St., Buffalo 4.

#### February

- Feb. 1-4 2nd Southwest Heating and Air Conditioning Exposition. Memorial Auditorium, Dallas, Tex. E. K. Stevens, exposition manager, International Exposition Co., 480 Lexington Ave., New York 17.
- Feb. 1-4 American Society of Heating, Refrigerating and Air-Conditioning Engineers, semi-annual meeting. Baker and Adolphus Hotels, Dallas, Tex. R. C. Cross, executive secretary, 234 Fifth Ave.. New York.
- Feb. 4-5 Sheet Metal and Warm Air Heating Contractors' Association of Indiana, annual convention. Severin Hotel, Indianapolis. J. W. Ridgway, president, 53 W. Meredith, Frankfort, Ind.
- Feb. 8-10 Sheet Metal Contractors' Association of Illinois, annual convention. Pere Marquette Hotel, Peoria. Jay E. Harms, secretary, 1619 N. Sheridan Rd., Peoria.
- Feb. 12-13 Sheet Metal and Roofing Contractors' Association of Minnesota, annual convention. Lowry Hotel, St. Paul. Dale Lynch, secretary, 5 W. Lake St., Room 301, Minneapolis 8.
- Feb. 15-18 Annual Industrial Ventilation Conference. Kellogg Center, Michigan State University, East Lansing, Mich. James C. Barrett, Michigan Department of Health, Lansing 4.

#### March

Mar. 6-9 — Ohio Sheet Metal Contractors' Association, annual convention. Deshler-Hilton Hotel, Columbus. Donald E. Dieterle, executive secretary, 1603 S. Cove Blvd., Toledo 6.

- Mar. 7.9 Sheet Metal Contractors' Association of Wisconsin, annual convention. Schroeder Hotel, Milwaukee. Robert S. Schmieder, secretary, 8320 W. Bluemound Rd., Milwaukee.
- Mar. 9-11 Michigan Heating & Sheet Metal Association, annual convention. Pantlind Hotel, Grand Rapids. N. J. Biddle, executive secretary, 3035 E. Grand Blvd., Detroit.
- Mar. 14-15 National Warm Air Heating and Air Conditioning Association of Canada, annual convention. Seaway Hotel, Toronto. T. A. Clark, general manager, 4195 Dundas St., W., Islington, Ont., Canada.
- Mar. 21-24 2nd Annual Industrial Ventilation Conference. North Carolina State College, Raleigh, N. C. David B. Stansel, assistant director, Division of College Extension, North Carolina State College, P. O. Box 5125, Raleigh, N. C.
- Mar. 30-Apr. 1 Gas Appliance Manufacturers' Association, annual convention.
  Greenbrier Hotel, White Sulphur Springs,
  W. Va. Gas Appliance Manufacturers' Association, 60 E. 42nd St., New York 17.

#### April

- Apr. 4-7 Oil Heat Institute of America, annual convention and exposition. Park Sheraton Hotel and the Coliseum, New York City. R. H. L. Becker managing director, 500-5th Ave., New York 36.
- Apr. 27-30 Western Air Conditioning, Heating, Ventilating and Refrigeration Exhibit and Conference. Shrine Exposition Hall. Los Angeles. Fred J. Tabery, exhibit manager, 3443 S. Hill St., Los Angeles.
- Apr. 28-30 Roofing and Sheet Metal Contractors' Association of Florida, annual convention. Cherry Plaza Hotel. Orlando, Fla. Eldon G. Goldman, P. O. Box 543, Winter Park, Fla.

#### **ASSOCIATIONS**

#### **Coming Events**

(Continued)

#### May

May 2-3 — Northamerican Heating & Air-conditioning Wholesalers, spring convention. Hotel Roosevelt, New Orleans. Wilbur R. Bull, managing director, 1200 W. Fifth Ave., Columbus, O.

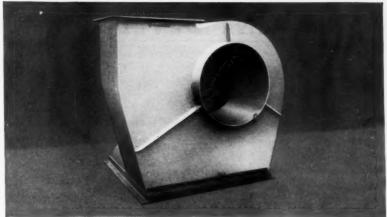
May 26-28 — Sheet Metal and Air Conditioning Contractors' National Association, Inc., annual convention. Hotel Statler, Boston. J. D. Wilder, executive secretary, 107 Center St., Elgin, Ill.

#### June

June 2-5 — Sheet Metal, Roofing, Heating, Air Conditioning Contractors' Association of Georgia, annual convention. Jekyll Club Hotel, Jekyll Island, Ga. B. L. Noblitt, executive secretary, 208 Red Rock Bldg., Atlanta 3.

June 16-18 — Sheet Metal, Air Conditioning and Roofing Contractors' Association of Pennsylvania, annual convention. Lawrence Hotel, Erie, Pa. Earl W. Liebermann, secretary, 1411 Merchant St., Ambridge, Pa.

June 30-July 2 — Carolinas Roofing and Sheet Metal Contractors' Association, annual convention. Ocean Forest Hotel, Myrtle Beach, S. C. H. J. Stockard Jr., executive secretary, P. O. Box 408, Raleigh, N. C.



Heil Large Capacity Rigidon® (Reinforced Plastic) Centrifugat Fan that Exhausts 25,000 CFM of Mixed Acid Fumes at Large Eastern Manufacturing Plant.

#### For

- Complete Corrosion Resistance
- No Repairs or Maintenance
- Service Proved Design
- Wide Range of Standard Sizes

#### Specify



### SOLID PLASTIC

#### ... NOTHING TO RUST ...

Extremely wide range of standard sizes in both centrifugal and axial designs, fabricated of our proven, corrosion resistant Rigidon® (reinforced plastic) and Rigivin® (rigid vinyl) construction, speeds delivery and minimizes engineering costs.

Let the Heil corrosion engineers, with their wide experience, help you select the size and type of plastic fan that will give you the best service under your particular conditions.

Ask us about Heil solid plastic Collecting Hoods, Ducts, Stacks, and Fume Scrubbers for a completely corrosion resistant, rust-free, ventilating system, also Heil heavy duty rubber lined or coated fans, available in a complete range of capacities and static pressures.

Write for the Heil bulletins. They list standard sizes and give complete specifications.



Heil Rigivin® (Rigid Vinyl) Axial Fan to Exhaust Fumes from Chemical Laboratory,



Heil Rigidon® (Reinforced Plastic) Centrilugal Fan Handling H2SO4 Fumes.



Heil 30,000 CFM Heavy Duty Rubber Lined Fan Handling Fumes at Large Chemical Plant.





### HEIL PROCESS EQUIPMENT

CORPORATION

12920 Elmwood Ave. • Cleveland 11, Ohio

#### EQUIPMENT DEVELOPMENTS

The latest information on manufacturers' developments is presented here with brief summaries of the applications of these products. For additional product information which is available see this month's New Literature department

#### Air Cleaner-Humidifier

"AUTOMATIC AIR PURIFIER" unit, used in conjunction with central heating or air conditioning systems which removes impurities and odors from indoor air and controls humidity—Carrier Corp., Carrier Pkwy., Syr-



acuse 1, N.Y. Two units available handle 1200 and 2000 cfm. are 20 and 28 in, wide, 27 in. deep, 571/2 in. high. Matching furnace capacities are 120,000 and 185,000 Btu; cooling capacities are 36,000 and 60,000 Btu. Air from conditioned space flows through filter element which is continually bathed with purifying fluid pumped from collector pan at bottom. Part of fluid is drained into regenerator where odors are removed and exhausted outdoors and minerals are precipitated. Humidity is controlled by humidistat which adds required proportion of water to purifying solution, according to indoor conditions, Air enters unit through return duct from conditioned space, and is passed through air handling equipment and into supply air system.

#### **Alloy Sheets**

LINE OF SHEET and plate aluminum alloys designed for corrosion-resist-

ant applications—Aluminum Co. of America. 798 Alcoa Bldg., Pittsburgh 19. Used on some water heaters, alloy is designed to combine strength and corrosion resistance. Clad surface of alloy combinations serves as built-in anode to provide electrochemical protection to core alloys.

#### Wall Diffuser

"Super 38" 18 in. diffuser with polystyrene face which does not crack, rust or mar—Air Control Products, Inc., 158 Center St., Coopersville, Mich. Free area is 38 sq in. Unit is designed to blanket wall with wide



air patterns. Unit can be removed and replaced; it can be installed on the sub-floor and plastered into wall. Design matches decor of modern homes, according to the manufacturer.

#### Correction

In November we incorrectly reported that Kalamazoo Furnace & Appliance Mfg. Co. was offering a heat reclaiming unit for installation in a furnace smoke pipe. The Kalamazoo Furnace & Appliance Mfg. Co. does not make or have anything to do with the sale of this product. The incorrect listing of this unit was accidental; it should have been identified with Hampden Heating Supply, Springfield, Mass.

#### **Hydraulic Press Brakes**

Series HD hydraulic press brakes from 200 to 1000 tons in 44 models with bed and ram lengths from 8 ft 8 in. to 24 ft—Niagara Machine &



Tool Works, 637-697 Northland Ave., Buffalo 11, N.Y. Featured are: ram leveling and tilt control; self-aligning ball joints with renewable seats; unitized hydraulic system; hydraulic cylinders keyed to frame for accurate alignment; laminated, non-metallic ways; deep bed interlocked to frame; front-operated, lower limit, ram adjustment; deep section steel housings; adjustable top and bottom stroke stops; portable, multi-position foot switch.

#### **Industrial Fans**

Series 400 industrial fans for air and material handling applications—Westinghouse Sturtevant Div., Dept. T-000, 200 Readville St., Hyde Park, Boston 36. Open type material wheel is constructed of flat radial blades for easy maintenance. Backplate material wheel is available. Wheels are heavy welded steel, contain no rivet heads. Streamlined inlet is designed to reduce air and material shock. Fans are available for handling clean air, fumes, and light industrial dust with air wheel that



#### PATTERNS with a PURPOSE

Gas men know that these blue flames signify good combustion in any heating application. They also know that the flame pattern of each burner is equally important in specific applications. Our purpose as gas burner manufacturers is to offer you the right combustion and flame patterns in every application. For specifications on these versatile atmospheric and power gas burners see the reverse side.

by

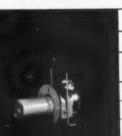
THE



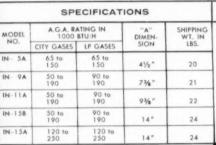
MANUFACTURING CO.

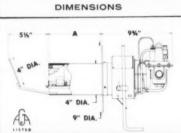
Cleveland 10, Ohio

#### BARBER LINE SPECIFICATION SHEET

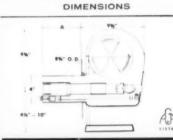


#### "GUN HEAT" Series - Tube Type Atmospheric Inshot





#### "CONTRACTOR" Series - Forced Draft (Power) Inshot



	SPI	ECIFICAT	IONS		
MODEL NO.	A.G.A. RA 1000		DIMEN-	SHIPPING WT. IN	
	CITY GASES	LP GASES	SION	LBS.	
FD-225	75 to 225	75 to 225	207.174		
FD-275	75 to 275	75 to 275	MODELS CHOICE	BY BLAST TUBE LENGTH	
FD-325	1414	275 to 325	OF 5", 8", 10"	5"-42 Lbs.	
FD-350	150 to 350	(On Nat. Gas Only)	8", 10"	8"-45 lbs. 10"-46 lbs.	
FD-400	150 to	(On Nat.)		15"-49 Lbs.	

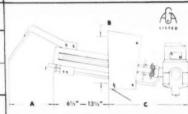
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#### "TELE TUBE" Series - Tubeless Atmospheric Inshot



MODEL	A.G.A. RATE	D	SHIPPING WT.		
NO.	ALL GASES	A	В	С	IN LBS.
DS-225	50 to 225	51/8"	51/4"	91/4"	13
DS-400	200 to *400	67/6"	7"	10"	23



DIMENSIONS

"SPREAD HEAT" Series - Plate Type Atmospheric Upshot

ions
A.A.
9 0

1	MODEL	A.G.A. RATE	DIA	SHIPPING WT.		
١	NO.	(1000 Btu/h) ALL GASES	A	В	С	IN LBS.
	UP-1A	50 to 120	14½" to 22"	11/4"	11" to 17"	27
	UP-2A	50 to 240	14½" to 22"	11/4"	11" to 17"	28
	UP-3A	200 to *400	17½" to 25"	234"	14" to 20"	30



THE



MANUFACTURING COMPANY
1052 East 134th Street, Cleveland 10, Ohio

Yes, I am interested in more information and prices on these Burners.

NAME\_\_\_\_\_TITLE\_\_\_\_

ADDRESS ZONE\_\_\_\_STATE\_\_\_\_

(Continued

uses backwardly-inclined blades. Rubber and other protective coatings are available for severe corrosion and abrasion applications.

#### **Round Thermostat**

Model T86 "Diamond Jubilee" redesigned round thermostat incorporating modern styling with characteristic features of predecessors—Minneapolis-Honeywell Regulator Co., 2726 Fourth Ave. S., Minneapolis 8. Featured are: 40 percent larger "picture window" thermostat dial and 20 per-



cent larger numbers; relocation of set point scale to top and thermometer scale to bottom for easier reading; "comfort zone" to keep homeowner constantly informed of the operation of his system; silver-gray finish. Internal mechanism remains same.

#### **Aluminum Cleaner**

"Ox-Off" No. 536 compound to remove oxide, scale and heat discolorations from aluminum before welding —Chemclean Products Corp., 15-08 121st St., College Point 56, N.Y. Designed also to remove discoloration after welding, soldering or heat treating, and to level off minor scratches, product removes oxide by hand wiping or dipping in tank and water rinsing.

#### **Leak Detector**

"DETECT-A-LEAK" non-flammable, non-corrosive liquid to locate pin-

holes or other leaks around joints in pressure lines or tanks—Flamort Chemical Co., 746 Natoma St., San Francisco 3. Brushed onto suspected areas, liquid forms large bubbles which remain intact until danger spot can be marked. Liquid is in 8 oz containers, 1 gal and 5 gal cans and 55 gal drums. Product is suitable for application on refrigerant and pressure gas lines, according to the manufacturer.

#### **Soldering Cream**

"FARGAIL" SOLDERING CREAM flux without mineral acids—Farrelloy Co., 1258 N. 26th St., Philadelphia 21. Material is buffered to reduce corrosion and may be used on all operations where soldering paste is indicated. Cream has no conductivity of electrical current. Designed for applications requiring strong liquid fluxes, cream is said to be suitable for sweating copper fittings because scavenging action is so pronounced that solder becomes highly fluid. Cream is in half pound cans.

#### Gas, Oil Furnaces

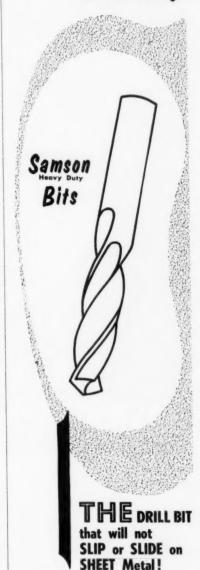
"Mor-Sun" series L lowboy gas-fired and oil-fired furnaces designed in two separate units—Morrison Steel Products, 601 Amherst St., Buffalo



7. Front section contains burner, controls and heat exchanger; rear section houses blower. Furnace can thus be moved into basement or narrow enclosures without removing door frames, railings, etc. Separate blower section permits adding larger blower for air conditioning application. Oil-

### Reorders ...

tell the story!



Reorders have told the Story of Samson's acceptance—over 200 New Distributors added since introduced!

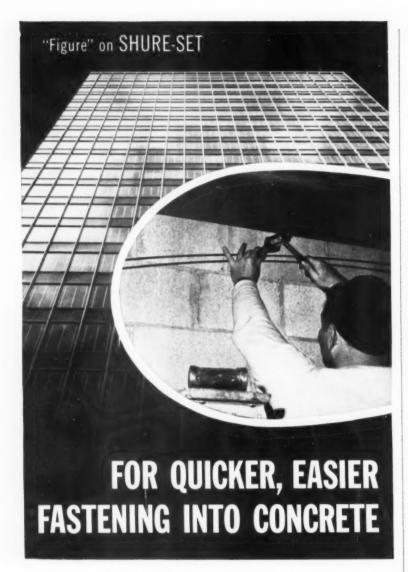
"The only one of its kind"

No-Creep design — Snap Resistant, even in 1/8" Size

More Holes per bit, 20% to 80% Longer life than other makes — See your WHOLESALER or write:

#### SAMSON DRILL COMPANY

443 East Tremont Ave., Bronx 57, N. Y.



UNIQUE POWER CONCENTRATION PRINCIPLE no cartridge required Shure

... another product by

Contractors everywhere are discovering that Shure-Set is a tremendous time- and worksaver on fastening temperature control systems and countless other plumbing, heating and air-conditioning jobs. This hammer-in tool sets threaded studs, drive pins, and wire loops into concrete without pre-drilling, filling or plugging. And it doesn't require a cartridge!

Just place fastener in the head of the tool, position against work surface, then drive fastener home with a few hammer blows. The secret is in the unique energytransfer principle of Shure-Set.

And remember Ramset for heavy-duty fastening. Write direct or call your dealer (under "Tools" in Yellow Pages) for details.

#### Ramset Fastening System

OLIN MATHIESON ON WINCHESTER WESTERN DIVISION Chemical Corporation 306-A Winchester Ave. New Haven 4, Conn.

#### equipment developments

fired units are rated from 95,000 to 123,000 Btuh at bonnet; gas-fired models are 88,000 to 120,000 Btuh at bonnet. Heat exchanger has inverted "Y" air passage, designed for maximum heat transfer.

#### **Air Cooled Air Conditioners**

"CORSAIRE" LINE of air cooled air conditioning units in self-contained



and remote condensing unit models -Rheem Home Products Div., 7600 S. Kedzie Ave., Chicago 52. Series consists of seven remote condensing unit models rated at 23,000 to 57.-000 Btuh, and two self-contained units rated at 22,000 and 33,000 Btuh, the company reports.

#### **Ceiling Diffuser Damper**

SCREW TYPE DAMPER for ceiling diffusers which can be set with screwdriver after installation to stop damp-



er at predetermined opening-Air Control Products, Inc., 158 Center St., Coopersville, Mich. Screw type

(Continued)

operator rack and pinion gear opens and closes damper without chains, springs or levers. Nylon rack and steel pinion gears hold damper firmly in place to prevent rattling under high air velocities. Unit is installed inside duct and diffuser is attached to tabs in damper ring.

#### **Duct Furnaces**

LINE OF GAS-FIRED duct furnaces designed for air conditioning applications—Modine Mig. Co., 1580 De-

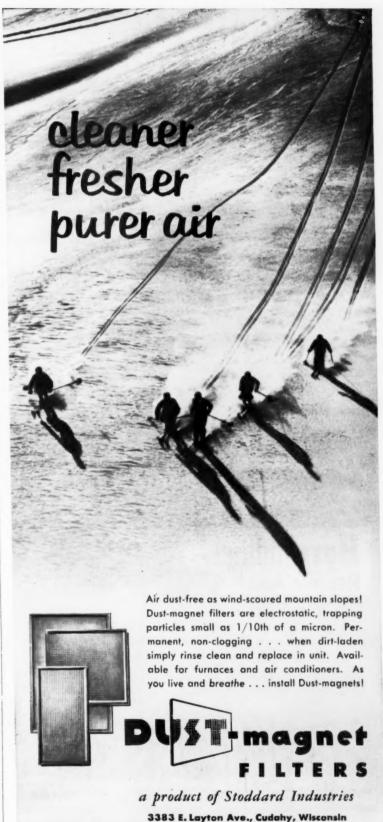


Koven Ave., Racine, Wis. Featured are: removable air bypass baffles which eliminate need for bypass ducts to handle greater cfm for cooling; stainless steel, lint-free burners; low voltage controls; aluminized steel casings; built-in draft diverters; stainless steel drain pans; automatic gas shutoff; self-cleaning burner ports. Units can be grouped. Heat exchangers are aluminized or stainless steel; tubes are individually and directly fired. Units are in six models from 75,000 to 300,000 Btu input.



#### **Packaged Chimneys**

"AIR-JET" ALL-FUEL packaged chimneys with extended smoke deflectors
—General Products Co., Inc., Fred-



# La Crosse Gutters and Conductor Pipe

La Crosse Style "K" Box Gutters \* "Easy Slip" Eaves Trough \* Conductor Pipe & Elbows \* Hangers

#### La Crosse Pipe and Fittings for Warm Air Heating and Cooling

The La Crosse line of pipe, elbows, duct & fittings is complete — for any and every job

La Crosse

Steel Roofing & Corrugating Co.

227 Jay St., La Crosse, Wis.

P. O. Box 837



M. R. 's - A Few Territories' Available. Write for Details

#### equipment developments

ericksburg, Va. Smoke deflector minimizes sooting. Special top design protects against rain, snow, downdrafts, nesting birds and other interferences. Eight decorative top housings are available, in buff and red colors.

#### **Telescopic Lift Truck**

SERIES OF telescopic lift trucks with load capacity of 1000 lb and lifting height to 160 in.—Big Joe Mfg. Co.,



Ralph Hines Rd., Wisconsin Dells, Wis. Unit features heavy-duty 12-v system and low styling to permit travel from room to room, avoiding door tops and overhead obstructions. Smaller model with pneumatic tires has telescopic lifting height to 110 in. and 78 in. top clearance.

#### **Lowboy Furnaces**

GAS-FIRED and oil-fired lowboy furnaces in inputs of 112,000 to 224,000 Btuh and outputs of 110,000 to 220,000 Btuh—Richmond and Home Products Divisions, Rheem Mfg. Co., Metuchen, N. J. Large, slow-speed blower, spun glass filters, combination corrugated asbestos and aluminum foil insulation, and heavy-duty heat exchangers are featured. Oil-fired unit has two-piece refractory type combustion chamber. Access doors are removable quickly for service or cleaning.

(Continued

#### **Pitot Tubes**

SERIES OF STAINLESS steel pitot tubes with ½ in. outside diameters and overall lengths of 6 or 12 in.—F. W. Dwyer Mfg. Co., Dept. AA-8, Box 373, Michigan City, Ind. Smaller



diameter is said to afford less turbulence. Units operate most efficiently in duct diameters of 4 in, or less and are said to perform satisfactorily in any duct where insertion is no more than 12 in. Tubes can be flexed without damage, used in temperatures to 800 F. All joints are silver soldered. Tip is hemispherical for damage resistance; static openings are machined for accuracy the manufacturer reports.

#### **Compact Furnaces**

HIGHBOY AND counterflow 18 in. wide oil-fired furnace and redesigned lowboy oil- or gas-fired unit-Majestic Co., 733 Erie St., Huntington, Ind. Models U-18-O (highboy) and D-18-O (counterflow) have aluminum silicate fiber linings for combustion chambers, designed for high heat resistance and noise-deadening effects. Inside surfaces of casing are undercoated for corrosion resistance and sound deadening. Burner. mounted relay has sensing element in blast tube; six-way alignment adjustment of heat exchanger allows for contraction and expansion and cuts noise. Equipped with summer fan switch, fan-limit control and adjustable fan control, units are rated at 67,000 Btu at bonnet. Dimensions are  $18 \times 18 \times 54\frac{1}{2}$  in. Lowboy has expanded metal casing front which encloses controls.

### Versatility Unlimited



In the modern store
MicroRold Stainless
Steel adds elegance...
lessens maintenance

John Wanamaker store Wynnewood, Pa.

There's no compromise in quality and durability—when you select gleaming, lifetime stainless steel for buildings, storefronts and entrances. As a functional and decorative companion to wide glass areas, stainless steel is engineered to perform perfectly—year after year after year. The fact that stainless steel's beauty is permanent—and so easy to maintain—makes it the most practical choice in contemporary design.



Specify MICROROLD STAINLESS SHEET AND STRIP, available from local steel service centers in all architectural grades, thicknesses, finishes and textures. Send for your free copy, Bulletin 259, A.I.A. File 15-H-1, "ARCHITECTURAL STAINLESS ENGINEERING DATA."

#### **Washington Steel Corporation**

1-J WOODLAND AVENUE WASHINGTON, PA.





Lincoln Hi-Boy (Oil Fired) Available in five sizes from 85,000 to 184,000 Btu. at bonnet.

The full line of Lincoln Oil-Fired Home Winter Air Conditioners offers the dealer an all-star performance from every angle ... efficiency, economy, good looks, easy installation ... you name it!

Write for full descriptive literature and get all the reasons why it pays to push the LINCOLN line!



#### equipment developments

#### **Humidification System**

"Cormaire" model 900 packaged humidification system for residential application—Skuttle Mfg. Co., Milford, Mich. Unit utilizes "Vapoglas" plate humidifier with added electric element designed to provide con-



trolled humidification during entire heating season. Unit has 20 evaporating plates, housed in corrosion-resistant evaporating pan. A 625-w electrical element encased in felt is under evaporating plan, to eliminate hard water deposits on heating element. Hygrometer is furnished with the humidifier for homeowner's use. Unit can be manually or automatically controlled. Humidifier is placed in plenum, humidistat in any convenient location.

#### Ratchet Wrench

"Kwik-Tite" No. 499-F lightweight ratchet wrench designed to speed fitting assembly—Imperial Brass Mfg.



Co., 6300 W. Howard St., Chicago 48. Unit is designed for making up tube and pipe fittings and fastening machine nuts and hex fasteners and other applications. Features are; positive locking jaw action without marring surface; forged chrome-



soot in one hand hose and all

The Portable SOOTMASTER #521-8 weighing only 25 lbs. is the vacuum which offers the maximum filter area and largest soot chamber of any industrial cleaning unit of its size.

MASTERCRAFT'S exclusive hose-holder basket let's you carry the entire cleaner including the hose from job to job with only one hand. Users do more work with less effort.



JOBBER DISTRIBUTOR ENQUIRIES INVITED

vanadium steel jaws; spring steel handle with stainless steel rivets; replaceable parts; cadmium-plated surfaces.

#### Pipe, Tube Insulation

"Flex-Sulation" pre-formed neoprene insulation for covering refrigeration lines to prevent sweating-Grant Wilson, Inc., Dept. AA-8, 141



W. Jackson Blvd., Chicago 4. Insulation slips onto straight, bent or coiled pipe or tubing. It is available in 6 ft lengths with 3/8 or 1/2 in. wall thicknesses for 1/4 to 3 in. copper tubing and 1/4 to 21/2 in. iron pipe. Material resists acid, oil and alkalis and is non-toxic. It resists rodent, fungus and vermin attack and is water- and air-tight. K-factor is 0.30 Btu at 120 F. Material can be slit for installation on existing lines. Adhesive is available.

#### Washable Air Filter

WASHABLE FURNACE air filter made of polyurethane foam which is said to offer little resistance to air flow yet



provide high dust-holding capacity through "depth-loading" properties -Auto-Flo Corp., 1209 Dixie St.,

#### "COPY NIBBLERS"

mass produce any shape Copy directly from your master

Easily-Economically

- does
- Beading Folding
- Shearing
- . Slotting . Flanging
- Louver Cuttina



#### Eliminate high tooling costs:

Sheetmetal is firmly clamped and guided by roller-bearing coordinates as operator effortlessly feeds tracer along template contours. Built-in rulers quickly position sheet for rectangular cuts. Circular cuts to 24" diameter are made through a special swivel

All-side-cutting punch pierces its own starting hole—cuts in any direction without distortion. Copy nibbles up to 9 gage steel-regular nibbling up to 0.20" steelshears up to 1/4" steel.

Steplessly adjustable stroke and stroke position. Three models—throat depths 41 ', 49" and 59". Universal forming attachments available.

Write for further information! - Dealer inquiries invited!

Importers of Leading Precision Machine Tools Nationwide Sales and Service COSA CORPORATION, 405 LEXINGTON AVENUE, NEW YORK 17, N.Y.

#### DECORATIVE FUNCTIONAL

- ... for Ventilation
- . . . for Concealment
- .. for Acoustical Purposes

### erforated Metals



Perforated Metal Grilles can be ordered from the wide selection of patterns available at H & K. Classic or modern design-grilles are made to your exact specifications, in kind of metal, thickness of metal, size, shape, finish and margins. Send for Grille Catalog.





Decorative Perforated Metal Sheets (in lighter gauge steel) are carried in stock for prompt shipment from H & K warehouses. Send for H & K Stock List Brochure, with illustrations and specifications of patterns in stock.

For information about all H & K perforated metals, including louvers (fixed and lip slot), send for H & K General Catalog No. 75.



arrington &

Chicago Office and Warehouse New York Office and Warehouse 5649 Fillmore St., Chicago 44, Ill. 114 Liberty St., Dept. AA, New York 6



Just a few of the many H&K patterns are illustrated-in reduced size









AMERICAN ARTISAN, JANUARY 1960

(Continued)

Detroit 39. Dual filter element is fabricated in flat pouch form with zipper closure; pouch slips over plated wire frame which fits standard air filter openings in furnace and air conditioners. Filter can be washed with soap and water in washing machine. Filter is non-allergenic, non-toxic, rustproof and mildew-proof, never needs oiling. Each filter contains germ-killing agent. Filters are stocked in standard sizes.

#### **Electric Hammers**

"Kango" series of electric hammers in three models designed for breaking brickwork, concrete, etc.; and other installation operations—

Porter-Cable Machine Co., 700 Marcellus St., Syracuse 4, N.Y. Motor has "floating" armature; double-pole switch is rubber-mounted and sealed. Rubber-cushioned drive reduces shock loading on motor and hammer mechanism. Drilling range (three

models) is from 3/16 to 1 in.; units strike 1300 to 1800 blows per minute. Furnished with each unit are chuck and chuck wrench, drift key, star drill, bull point concrete chisel,



blade holder, oil, instruction sheet and parts list.

#### **Lock Seam Adapter**

SP SERIES Pittsburgh lock seam adapters for small air hammers—Superior Pneumatic & Mfg., Inc., 13800 Enterprise Ave., Cleveland 35. Adapters fit over end of standard hand air hammer, can be used to fold over heavy metal to 16 ga for general fab-

ricating and can run Pittsburgh lock seams on ductwork and galvanized



metal parts. Model SP360 handles 14 to 22 ga; SP260 is for 23 ga and lighter. Units are designed for certain air hammers produced by the company.

#### **Porcelainized Blower Parts**

LICHTWEIGHT porcelain enameled blower wheels and assemblies designed for application in corrosive atmospheres—Morrison Products, Inc., 16816 Waterloo Rd., Cleveland 10. Wheels are in 10 through 20 in.



FABRICATING BUSINESS.



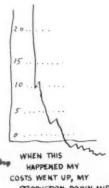
YOU OUGHTA SEE
ME FABRICATE ZINCCOATED STEEL SKEETS
WHEN I FABRICATED
THEM, THEY WERE REALLY
FABRICATED, I'D CRIMP EM!
DRAW EM! SPIN EM!
TWIST EM!



AND IF THEY WEREN'T
THE FINEST
OF THEIR
KIND



PEEL OR CHIP.



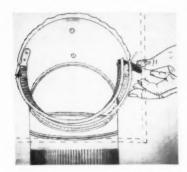
PRODUCTION DOWN AND BUSINESS WAS SORT OF CRIMPED TOO.

(Continued)

sizes, in capacities to 12,000 cfm. Corresponding porcelainized housings and bearing brackets are available.

#### Joint Lock

"LEVER-LOCK Take-Off" duct fitting joint locking device in 5, 6 and 7 in.



sizes—Snappy, Inc., 620 W. Main St., Detroit Lakes, Minn. Take-off is inserted in hole, outside lever is snapped and unit is locked firmly, the company reports. Unit eliminates need for reaching in or through fitting.

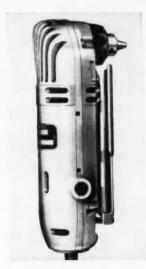
#### **Air Handling Units**

SIXTEEN AIR HANDLING units in capacities from 880 to 47,500 cfm and coil face velocities from 400 to 700 fpm-Halstead & Mitchell, Bessemer Bldg., Pittsburgh 22. Units can be used with direct expansion coils or chilled water coils. Face areas range from 2 to 68 sq ft. Panels are removable. Discharge direction may be horizontal or vertical; high or low velocity filters may be used. Vibration isolators for suspended units are available. Ball bearings require no lubrication or servicing. Variable pitch sheaves and centrifugal blowers with forward curved blades are optional. Aluminum or copper fins are available.

#### **Electric Drill**

"Shorty" 1/4 in. electric drill with increased power and 15 percent reduction in weight, featuring offset

design of chuck head to permit working in confined space and around corners—Black & Decker Mfg. Co., Pennsylvania Ave., Towson 4, Md.



Air for cooling is drawn in through baffles under operator's hand. Capacity is up to ½ in. in steel or ½ in. in hardwood. Full load speed is 1000 rpm.



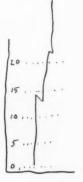
BUT I CHANGED ALL THAT.



OH! I'M STILL A TIGER
AT WORK, BUT NOW I USE
WEIRKOTE MODERN CONTINUOUS
PROCESS ZINC-COATED STEEL
THAT CAN REALLY TAKE IT.
I PUT IT THROUGH THE
TOUGHEST JOBS
IN THE SHOP; GIVE IT
THE OLD TORTURE
TREATMENT.



BUT THAT ZINC COAT NEVER CHIPS OR FLAKES. I WORK IT TO THE LIMITS OF THE STEEL ITSELF AND THAT GOOD OLE ZINC CLINGS TIGHT.



WHAT'S MORE, I SAVE MONEY --PRODUCTION IS SMOOTHER, WASTE WAY DOWN.



MAN THIS WERKOTE
ZINC-COATED STEEL
HAS WHAT IT TAKES
AND TAKES ALL YOU CAN GIVE
IT. IT'S MADE BY WEIRTON
STEEL. THEY MAKE LOTS OF
FIRST-QUALITY STEELS AT
WEIRTON, WEST VIRGINIA.



Weirton Steel is a division of NATIONAL STEEL CORPORATION



FROM

Autoflo

WORLD'S LARGEST HUMIDIFIER MANUFACTURER

TWO NEW

POWER HUMIDIFIERS

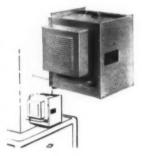
### PORTABLE POWER HUMIDIFIER

HANDSOME portable distributes humidity in pure vapor form. High capacity 110 volt A.C. unit has simple push button controls, BUILT-IN HUMIDISTAT, humidifies even large homes. Attractive cabinets blend with any decor.



#### NEW MODEL 30 FURNACE POWER HUMIDIFIER

EFFICIENT high capacity unit adds humidity in pure vapor form to even large homes. When furnace blower comes on, humidifier fan and recirculating pump go to work! 110 volt A.C., no drain connections, no drain problems. Humidistat package available.



#### **FULL ONE YEAR WARRANTY**

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Dept. AA-1						
Please send	me fu	ll informati	on on	;		
Portable	Power	Humidifier		Furnace	Power	Humidifie
Name						
Address						
City		2	one _	Sto	ite	

#### new literature . . .

#### **Furnaces, Air Conditioning Units**

SELECTION GUIDE gives data on oil, gas and electric furnaces as well as air conditioners and prefabricated chimneys and fireplaces. Designed for consumer distribution, the guide urges readers to "consult with your dealer-contractor, who will help you select the furnace or air conditioner that will meet your particular installation requirements." The folder is illustrated throughout with product photos, lists capacities, dimensions and specific literature available—The Majestic Co., Inc., 733 Erie St., Huntington, Ind.

#### **Advantages of Circulated Air Systems**

How WARM AIR HEATING dealer-contractors can meet competition of direct electric resistance heating by explaining the advantages of circulated air is described in a recent issue of Fitting Facts, "You're the Btu man — not the electrician," the bulletin points out. "We contend that when it comes to heating, a skilled craftsman - the heating dealer-contractor, with a background of years of study, training and experience - is the man best qualified to do the job. When it comes to heating with electricity, it's still a matter of Btu's, not watts, and the heating dealercontractor is the man who knows his Btu's. It's a job requiring skill and experience in heating, not in wiring, installing lighting fixtures, etc." The bulletin goes on to say that circulated air, regardless of heat source, provides the best in comfort and home cleanliness, that there is no dead air in a warm air heated home, no retention of odors, no lack or excess of humidification.

It's up to the warm air heating dealer-contractor, the bulletin says, to sell the home owner on the health, comfort, convenience and economy provided by a well installed forced warm air heating system—Air Distribution Institute, Keith Bldg., Cleveland 15, O.

#### **Arc and Spot Welders**

THIRTIETH ANNIVERSARY BROCHURE, "The Miller Electric Story," describes how each department functions in the development, production, sale and servicing of welding equipment. Included are photographs of plant and office personnel, plant facilities, manufacturing equipment and finished products—Miller Electric Mfg. Co., Inc., 718 S. Bounds St., Appleton, Wis.

#### **Outdoor Air Intake**

CIRCULAR describes operation of "Dibert" pressurizers for warm air heating systems. According to the company, the pressurizer brings in outside air, mixes it with warm air, then discharges the mixed air into (Continued)

the cold air return. It then passes through the heating unit and into the living quarters. The company states that use of the pressurizer eliminates odors and drafts and improves humidity—Rymco, Inc., 1627 W. Fort St., Detroit, 16, Mich.

#### Fluxes and Solders

Catalog C-1 describes fluxes, solder and tinning compounds. Also described are soldering supplies including acid brushes, sal bars, wire and core solders and solder rings—Johnson Mfg. Co., Inc., Mount Vernon, Iowa.

#### **Calendar-Reference Chart**

Calendar for 1960 contains tables and reference data for sheet metal contractors. Send request on company letterhead—David Levow, Inc., 7 Georgia St., South Hackensack, N.J.

#### **Dual Duct Air Mixing Units**

DUAL DUCT air mixing units featuring automatic volume control are illustrated and described in Bulletin DD-6 (16 pages). Included are performance data, specifications, dimensions and suggested system arrangements for different types of buildings—Buensod-Stacey, Inc., 45 W. 18th St., New York 11.

#### Gas, Oil Furnaces and Cooling Units

BROCHURE illustrates features of "Air-Ease" gas-and oil-fired heating and air conditioning units. Dimensions and specifications are given for highboy, lowboy and counterflow models. Complete installation and operating instructions are included as well as data on maintenance and service—The Johnson Furnace Co., 2129 W. 117th St., Cleveland 11.

#### **Air Distribution Equipment**

DATA ON "UNI-FLO" air distribution equipment is presented in an eight page, illustrated catalog. Text describes features of sidewall diffusers and return grilles, ceiling diffusers, door grilles, volume controls and double duct constant volume regulators. Ask for Form F-4471-6—Barber-Colman Co., 1300 Rock St., Rockford, Ill.

#### **Direct-Fired Heaters**

"Thermobloc" direct-fired heaters in gas, oil or combination gas-oil models are described in a four page circular illustrated with photographs of equipment ranging in capacity from 300,000 to 1,250,000



FROM

Autoflo

PERMANENT WASHABLE

AIR FILTER

COMPLETELY REMOVABLE



Double-filter zips open. Removable all-metal frame



Wash, wring and replace miraclemaze Polyurethane filter in seconds.

- Treated with COPOND

  THIURAM® a germ killing agent.
- Safe, easy to handle ... no irritating glass or metal particles to harm skin.
- Non-allergenic, nontoxic, can't rot or mildew.
- Washes like a towel . . . never needs oiling.
- 100% filtration area...outperforms all other filtering materials.
- Miracle maze, double-wall design holds more dust yet allows better air passage.
- Attractively packaged in "self-selling" cartons.

AUTO-FLO CORPORATION

12085 Dixie Street, Detroit 39, Michigan

Dept. AA-2

Please send me complete information on your new permanent washable Air Filter.

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Here's the line designed for YOU



the complete line...completely dependable! All the thicknesses and weights you'll ever need

#### ASRESTOS PAPER



A full range of thicknesses and weights. from 8 to 64 pounds per 100 square feet 18", 24" and 36" wide. 5 lb., 10 25 lb., 50 lb. and 100 lb. rolls.

#### ASRESTOS TAPE







MILLBOARD:

Tough but not brittlethicknesses from 16" to carton packed for protection until used

#### AIR-CELL CORRUGATED:





DUX-SULATION:

The world's heat duct insulation-1/2" and 1" thick. Costs a little more, worth a lot more.

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FLEXI-DUCT:



4", 6" and 8" widths of elvage edged flexible ashestos woven duct connectors. ow cost, meets Underwriters requirements.

#### FURNACE CEMENT:





COMBUSTION CHAMBERS:



1/4 to 12 gallons per hour—quick installation, maximum combustion efficiency and long life.

THIS "BUYING & SELLING GUIDE" TELLS YOU EVERYTHING YOU NEED TO KNOW ABOUT ASBESTOS OR INSULAT ING MATERIALS. GET

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ASBESTOS and INSULATING MATERIALS

141 W. JACKSON BLVD. Dept. AA CHICAGO 4, ILLINOIS



Btuh. Installation photos show heaters as used in manufacturing plants, greenhouses, steel mills, etc.—Wanson Corp., Lewistown, Pa.

#### **Heating and Cooling Equipment**

Portfolio contains literature giving specifications, sales features and engineering data on winter heating and summer air conditioning equipment. Included are circulars on "Supreme" gas-fired highboy and counterflow furnaces; "DeLuxe" oil-and gas-fired highboy, lowboy and counterflow furnaces; "Supreme" electric furnaces in highboy and counterflow models; self-contained central air conditioners; and add-on, suspended and duct type air conditioners—The Majestic Co., Inc., 733 Erie St., Huntington, Ind.

#### **Stud Welding Fasteners**

Pocket size booklet (50 pages) explains the stud welding process and presents specifications for various types of welding studs and pins. Each standard specification page includes drawings, dimensional data, descriptive text and ordering information. Send requests on company letterhead—KSM Products, Inc., Merchantville, N. J.

#### **Metal Working Tools**

GENERAL CATALOG FOR 1960 covers metal working tools including the company's new rod cutters and Universal bending brakes. Also available is the 1960 punch and die catalog which includes sections describing features, dimensions and prices of die shoes, punch holders, strippers and die adaptors—Whitney Metal Tool Co., 724 Forbes St., Rockford, Ill.

#### **Gas Conversion Burner**

CATALOG SHEET illustrates "Tele-Tube" gas conversion burners featuring adjustable venturi. According to the company, gases are mixed with air in the burner, then forced into the furnace horizontally where they are deflected downward at a 17 deg angle, producing 50,000 to 225,000 Btuh—Barber Mfg. Co., 1052 E. 134th St., Cleveland 10.

#### Oil and Gas Furnaces

CATALOG INSERT SHEETS cover oil- and gas-fired low-boy furnaces featuring spun glass air filter and slow-speed blower. Text describing construction features is illustrated with cutaway keyed photographs. Tables give dimensions, specifications and capacities—Rheem Mfg. Co., Richmond Plumbing Fixtures Div., 16 Pearl St., Metuchen, N. J.

#### EASIER TO SELL . . . EASIER TO INSTALL

America's First Completely

# STAINLESS STEEL HUMIDIFIER

### Waporite No. 999

- New styling for greater sales appeal.
- Re-engineered to avoid troublesome "callbacks".
- Tested and proved for longer service-free performance.
- Water leveling type.
- New type diaphragm seat.
- Adjustable to water pressure level.
- Competitively priced.
- Guaranteed.



- Full length non-breakable evaporating plates (optional equipment).
- Shipped completely assembled for easy, fast installation.



#### Air Conditioning Valves, Fittings

CATALOG R-7 (20 pages) contains information on relief valves, check valves, sight glasses, heat exchangers, hermetic valve kits, flare fittings, driers, filters and strainers. Included is information on sizing and application of valves and components, data on working pressures and descriptions of codes and regulations according to which products are manufactured—Superior Valve & Fittings Co., 1509 W. Liberty Ave., Pittsburgh 26.

#### **Multi-Blade Dampers**

CHART ENTITLED "How to Make Dampers" gives step by step instructions for constructing parallel and opposed action multi-blade dampers. Illustrations show how to make frame and blades and how to assemble the damper. Chart may be hung on the wall or may be folded and used in a loose-leaf binder—Duro Dyne Corp., Route 110, Farmingdale, N. Y.

#### **Blower-Filter Units**

BLOWER-FILTER UNIT for installation in existing gravity systems (gas, oil or coal) is described and illustrated in a single page data sheet punched for catalog insertion. According to the company, installation is simple and inexpensive, operating costs are low, and furnace capacity is increased—Crown Home Equipment, Div. of Crown Industries, 1410 N. Delaware Ave., Philadelphia 25.

#### Floor and Bench Hand Metal Punches

HAND METAL PUNCHES featuring adjustable ram (3/16 in, total adjustment) designed to reduce punching pressure are described in a four page circular illustrated with dimensional photographs and diagrams. Available in both bench and floor models, punches are said to punch a 2 in, hole through 14 gage mild steel or ½ in, hole through 3/16 in, mild steel—Whitney Metal Tool Co., 724 Forbes St., Rockford, Ill.

#### **Thermometers**

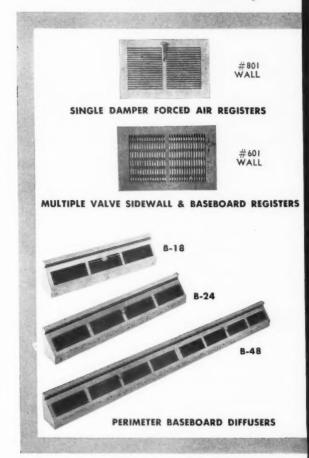
Bulletin F2 describes and illustrates "Air Duct" thermometers with bare bulb protected by perforated stem for sensitivity and quick response. Also described are "Moisture-Proof" thermometers for outdoor use on tanks, pipe lines, etc., and adjustable "MultiForm" models designed to lock in any required form or angle to bypass piping for better visibility—Precision Thermometer & Instrument Co., 1434 Brandywine St., Philadelphia 30.

sure signs of indoor comfort!

# Standard Registers & Grilles

... for custom control of warm air heating

. . . for uniform, year-around heating and cooling comfort





Also: return air grilles, baseboard and sidewall intakes, air cond. and ventilating returns, door grilles, floor registers, cold air faces, frames, ornamental metals.

Install Standard Registers and Grilles on every job to save time and increase customer satisfaction.

#### STANDARD STAMPING

for indoor comfort!

Mail the coupon today for new FREE catalog!

Standard Stamping & Perforating Co. 3137 W. 49th Place, Chicago 32, Illinois

Gentlemen: Please send me your new catalog showing the complete line of Standard Stamping Registers and Grilles.

Name\_\_\_\_\_

Company



FEATURES of new variable capacity electric furnace are studied by dealercontractors James W. Ridgway and Wm. E. Garber Jr.



SOME OF THE DEALER-CONTRACTORS who have sold and installed central electric heating systems meet with The Majestic Co.'s vice president at the firm's Key Dealer School. From left (seated) are: Fred Deem, Greenville, O.; Don Winegardner, Majestic Co.; O. E. Kingstedt, Montrose, Minn.; and Richard L. Hutson, Muncie, Ind. Standing are Robert E. Peltier, Tiffin, O.; Don L. Cline, Ft. Wayne; Jack Hirons, Muncie, Ind.; Carver Murray, Muncie, Ind.; and Charles J. Barnett, Moline, III.

# 'Electric Heat Prospects Want Comfort of Circulated Air'

. . . manufacturer's sales manager says. Sales approaches are outlined at annual dealer school

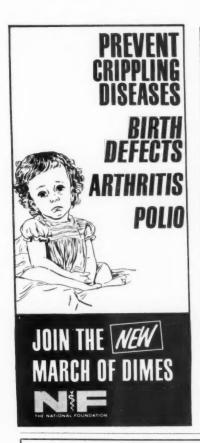
"You've got to sell the advantages of a central warm air heating system when a prospect is interested in using electricity as the source of energy. The advantages are found in the comfort that a central system can provide in contrast to that offered by the lower priced direct resistance electrical unit." This was the advice given by Don Winegardner, The Majestic Co., to the 175 dealer-contractors who attended the company's annual dealer school.

Among the advantages of the central system are even temperatures throughout each room, air filtering, humidity control, ease of adaptation to summer air conditioning, and adequate control of ventilation requirements.

Other speakers on the program described how to locate and train salesmen and where to locate pros-

pects. Richard Van DeWeghe, distributor, Appleton, Wis., suggested that small dealer-contractors could build their sales force by using part time salesmen. He recommended using blind newspaper ads to find men interested in working several evenings a week to supplement their incomes and training these part time salesmen with the idea in mind that they will eventually become full time representatives. He pointed out that by using a man on a part time basis it is possible to determine his ability and observe his personality traits without getting too involved in employee commitments.

Several ways to locate prospects were outlined by Tom L. Wheeler Jr., Wheeler, Kight and Gainey, Inc. He said that advertising is a most important expense to those dealer-contractors who want to in-



cure your heating

and draft problems with . . .

TJERNLUND CUSTOM EQUIPMENT





For Big Jobs — Suspended or Floor Models

Auto-Draft Inducer

- COUNTERFLOW SUSPENDED LO-BOY
- HI-BOY Complete sizes from 134,000 to 1,400,000 BTU Output. Immediate delivery!
- Positive venturi action
- Complete range of sizes

FOR MORE INFORMATION ABOUT
THESE FINE PRODUCTS — WRITE OR SEE

TJERNLUND MANUFACTURING CO.

2140 Kasota Ave.

St. Paul 6, Minn.

... finding price competition tough?

ADVANCE THE SALE OUT OF THE "LOW PRICE" CLASS \_\_\_\_\_\_

BY USING AMERICAN ARTISAN'S
STANDARDS FOR
RATING HEATING SYSTEMS

This set of standards, presented in a series of 19 articles in American Artisan and developed by Professor S. Konzo of the University of Illinois, is the most effective sales promotion tool the industry has ever used to beat price competition for quality installations. They are condensed here to help you present the quality story to prospects. These standards are already being used successfully by many heating dealers.

#### STANDARDS CARDS MAY BE USED . . .

- by salesmen as sales tools
- as direct mail pieces
- · as handouts at homeshows, fairs, etc.
- · as showroom displays



量量 1000

Editors, 6 N. Mi						o 2,	111.	 
SEND 2c EAC pack	CH,	(+	25	C S	ervi	ce c	har	
NAME								 

crease their profits. Advertising should be done regularly, with ads appearing every week throughout the year, he said. He likened the benefits of regular advertising to the record of the salesman who calls on his prospects regularly. Such a man's sales record is consistently higher than that of a salesman who operates erratically. Mr. Wheeler also suggested that dealer-contractors work closely with electric utility people to promote the use of central air distribution systems because by so doing they will be in a position to get leads that might not be obtained otherwise.

- ▶ THE TRANE Co. plans to build a new plant in Salt Lake City for the manufacture of commercial air conditioners, heating units, fans and ventilating equipment, and heat transfer coils. The new plant, which will contain about 60,000 sq ft of space in addition to warehouse facilities, will serve eleven western states—Arizona. California. Idaho. Nevada. Oregon, Utah, Washington, Montana, Wyoming, Colorado and New Mexico—as well as Alaska and Hawaii. Completion is expected within about a year.
- ▶ The first issue of "Now and Then" was recently published by Follansbee Steel Corp., producers of seamless terms roofing. The new publication, a digest of news and notes about the architectural and building

professions, will be sent to architects and builders throughout the country. It will be published approximately four times a year.

- Twelve miles of galvanized steel spiral ductwork designed to handle as much as 20 in. of static pressure, as compared with 1 in. for conventional ductwork, will be installed in the high velocity air conditioning system of the new Chase Manhattan National Bank building in New York City. The "Spira-Pipe" ductwork, produced by the Carrier Corp., will normally operate in the system under 10 in. of pressure, according to William A. Bingham Jr., who is supervising the installation of the ductwork. He said that the capacity to withstand the much higher pressure of 20 in. not only provides a safety factor, but also results in greatly reducing maintenance problems.
- ▶ KALAMAZOO FURNACE AND APPLIANCE MFG. Co. has acquired new offices and warehouse facilities at 615 Second St., Kalamazoo. Kalamazoo oil- and gasfired warm air heating equipment is now being shipped in truckload lots from the Dowagiac plant. Ben Scymkowski will be in charge of the new Kalamazoo warehouse facilities. Miss Ruth Holton will be in charge of the office.
- ▶ THE GROWING TREND toward central air conditioning in homes was recently discussed in a Los Angeles



radio program by J. R. Merrill, advertising manager of Lennox Industries Inc. Mr. Merrill appeared on the nighttime show "Conversation" as guest of narrator Al Poska. He explained how it is possible to combine central air conditioning with forced warm air heating in both new and conversion installations.

PAUL B. WISHART, president, Minneapolis-Honeywell Regulator Co., has been elected a vice president of the American Management Association. He will head AMA's general management division.



ASBESTOS RIBBON is cut by Robert R. Porter, president and chairman of the board of Keasbey & Mattison Co., at dedication of firm's new office building and research center. Also participating in the ceremonies are J. Eric Jones, Pennsylvania deputy secretary of commerce (left) and Congressman John A. LaFore Jr.

- ▶ Keasbey & Mattison Co. recently dedicated its new headquarters office building and research and development center at Ambler, Pa. Dedication ceremonies were attended by federal, state, county and local government officials as well as representatives from industry. The new office building contains 20,000 sq ft of floor space. The research and development center features a thermal conductivity room, an artificial climate room for simulating a variety of climatic and weather conditions, and various laboratories for individual product research.
- ▶ DAY & NIGHT MFG. Co. believes that growth in the air conditioning business depends on up-to-theminute technical training of every individual involved in the sale, installation and servicing of equipment. A. J. Horn, head of the company's heating and air conditioning operation, points out that proper installation prevents unnecessary service expense "and service know-how keeps the cost of necessary service to an economical minimum." Both of these factors, he says, protect the dealer-contractor's profits and also nurture



#### Here's the Humidifier You've Been Wishing For!

BON-AIR centrifugal action atomizes fresh water into a cool, fog-like mist for immediate, positive humidification — dependable year after year! Comes completely assembled for quick, profitable installation. Ready at your jobber — or write for information.

- \* LIFETIME COPPER CONSTRUCTION!

  \* NOTHING MORE TO BUY EVER!

  \* LOW POPULAR PRICE!

  \* THOUSANDS OF ENTHUSIASTIC USERS!
  - NO EVAPORATOR PLATES TO REPLACE!

    NO JETS! NO NOZZLES!

ARKLON MANUFACTURING COMPANY
P. O. BOX 3501-A • CLEVELAND 18, OHIO

good will among satisfied customers, which is an important ingredient of future sales. For these reasons, the company maintains a heavy technical training schedule. The program includes local schools presented by traveling teams of trained instructors as well as regular three day school sessions held in specially equipped school facilities at the firm's plant in La Puente, Calif. All sessions cover such phases as operation and basic engineering, routine service, trouble shooting and testing.







David C. Willson



Ellis B. Scripture

THE FRAM AIRE CORP, has been set up as a division of Fram Corp., with headquarters adjoining the parent company's headquarters in East Providence, R. I. Officers of the new corporation are C. A. Wilson,

president; David C. Willson, vice president and general manager; and Ellis B. Scripture, vice president,

- THE ROBERT W. NELSON MEMORIAL AWARD has been set up in memory of the former vice president of American Air Filter Co., Inc., by members of his family. The award will be presented each year to the young field sales engineer who is "adjudged as having best combined initiative, product knowledge and sound selling practices in promoting the sale and acceptance of American Air Filter's products to the maximum benefit of the customers and the company." Winner of the award will receive a plaque and 10 shares of the firm's common stock.
- ▶ Two EMPLOYEES of the Thatcher Furnace Co. Antoni Tomczyk and Salvatore Tucci - were recently honored for completing over 50 years of continuous service with the firm. To mark the occasion, the men were presented with inscribed gold watches by Thatcher President Carl Sahler.
- ARMCO STEEL CORP. plans to double the size of its research center at Middletown, O. Total cost of the building extension and new research equipment will be more than \$3,500,000. R. L. Gray, Armco president, said that while the company today is comparatively

#### DIECKMANN PIECE CONDUCTOR ELBOWS AND SHOES

SQUARE CORRUGATED ELBOWS AND SHOES, STYLE "A" (ORDINARY CURVE)

No. 10 - 20° No. 1 - 30° No. 1 - 45° No. 2 - 60° No. 3 - 75° No. 4 - 90° No. 1 No. 000



SQUARE CORRUGATED ELBOWS AND SHOES, STYLE "B" (SIDE CURVE) No.1 - 45° No.2 - 60° No.3 - 750 No. 4 .



ROUND CORRUGATED ELBOWS AND SHOES No.1 - 45° No.2 - 60° No.3 - 750 No. 4 - 900



PLAIN ROUND ELBOWS AND SHOES



This Emblem of Quality and Gauge of Material is Stamped in each Elbow and Shoe.

Leckmann, MARK TRADE ()

Our complete line is available in 28. 26. 24 Gauge Galvanized Steel, Copper Bearing Steel, Armco Ingot Iron, all Hot-Dipped-Galvanized after formation. Stainless Steel, 1X 40# Terne, Copper, Lead Coated Copper, Zinc, Aluminum, Mill or Embossed Finish. Bonderized-Galvanized Elbows and Shoes, ready for painting. ORDER ANGLE BY NUMBER OR DEGREE.

FREE Wall Chart - Illustrated 21" x 27" describes complete line ... write for Your Copy.

FERDINAND DIEC

1300 HARRISON AVENUE CINCINNATI 22, OHIO well stocked with new products and has a number of new developments nearing completion, "we cannot rest on past laurels. We know the rapid advances in technology taking place today will make many of our present products obsolete within 10 years. To keep ahead, we must continue to produce new steels and new steelmaking processes." Construction of the Middletown addition is expected to get underway immediately. The project is slated for completion early in 1961.

- THE WHITNEY METAL TOOL Co. has purchased the rotary throatless shear and cam press line formerly manufactured by the Marshalltown Mfg. Co. This equipment will now be produced at the Whitney firm's factory located at 110 Forbes St., Rockford, Ill. Servicing will also be handled by the Rockford plant. and all inquiries regarding the line should be directed to the Rockford address.
- WESTINGHOUSE ELECTRIC CORP. introduced its 1960 air conditioning and heating program to its distributors in a series of three conferences held recently at the Staunton, Va., plant. Highlight of the meetings was a preview showing new products in all lines residential cooling and heating, commercial and industrial air conditioning, and heat pumps. R. K. Serfass, general manager of the air conditioning division, keynoted each of the conferences by citing the record air conditioning sales in 1959 by Westinghouse and its customers. "The availability of funds generated from improved profits," he said, "will allow us to 'plow back' more into product development, and an enlarged marketing program. We will increase product development investment alone by 25 per cent in 1960." New equipment introduced included horizontal gas and oil furnaces, cooling coils with knockdown cabinets, self-contained residential cooling units, and self-contained heat pumps.

The company has extended sales of heat pumps into northern markets. "Up to now," Mr. Serfass said, "marketing of heat pumps has been concentrated in the South, where these units have shown a rapid increase in acceptance. Now we are going to extend sales to any areas where electric rates have been established to encourage the use of electric heating."

ROBERTSHAW-FULTON CONTROLS Co. has been granted an exclusive license to manufacture and market a gas-operated "cold making machine," for air conditioning of residences, according to T. T. Arden, president of the firm. Mr. Arden described the machine as "a combination of an internal combustion engine and refrigerant compressor in a single unit having only one moving part." The unit is claimed to be competitive with present cooling systems.

### now! A NEW CONCEPT IN SOLDERING IRONS the NE INTERNALLY FIRED TORCH

with AIR RING heat control



For the first time • A torch that meets all the requirements of the sheet metal trade!

Easy Finger Tip Adjustment • Gives the right soldering temperature for each job.

Concentrated heat • Enables light coppers to do heavy continuous work.

Melts solder • 90 seconds after lighting.

Continuous heat . Available all day.

Saves time • No stopping to change irons or replenish

Saves money • Operates up to 200 hours on a standard Insto-Gas Cylinder.

Highly Portable . Connects to cylinder with any length Insto-Gas hose.

Safe • No charcoal or gasoline fire hazards.

Two Models • No. 10-S-2 (2 lb. per pr. coppers) and No. 20-S-5 (5 lb. per pr. coppers)





#### SOLDERING IRON HEATER

Clean, instant, easily controlled heat for conventional type irons is obtained with Insto-Gas No. 1500 Soldering Iron Heater. Keeps points out of flame and reduces need for tinning. Fits either cylinder or bench type Insto-Gas furnaces.

Use the complete Insto-Gas line — Torches — Furnaces Cylinders. Available at better Industrial and Plumbing and Heating Wholesalers everywhere or mail coupon today.

INSTO-GAS CORPORATION, DETROIT 7, MICH.

Please send information on Soldering Iron Torches and Heaters.

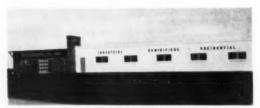
Name

Address.



ROCKFORD, ILLINOIS

▶ KLEEN AIR MFG. AND SALES CORP., manufacturers of power furnace cleaning units for residential and industrial applications, has been purchased by the Kent-Moore Organization. J. J. Adair, president of Kent-Moore, said that the Kleen Air company was acquired as part of Kent-Moore's diversification program which was started some three years ago. The new subsidiary will be known as Kleen-Air, Inc., will be headed by Mr. Adair as president. The Power Cleaning Equipment Corp., recently organized by Roy J. Meyers, who is the son of the founder of Kleen Air and who has been serving as Kleen Air president, has been named exclusive distributor of the firm's furnace cleaning units.



NEW BUILDING contains manufacturing area, warehouse and shipping facilities as well as executives offices, engineering and research facilities

- ▶ THE HERRMIDIFIER Co., INC., recently moved into its new plant located at 1810 Hempstead Rd., Lancaster, Pa. According to company officials, expanded facilities were required to meet growing production schedules.
- NEW YORK CITY SCHOOL OFFICIALS met recently with officials of Carrier Corp. to discuss the possibility of setting up an air conditioning service training program. According to Arthur E. Meling, director of technical services for the Unitary Equipment Div., the number of air conditioning installation and service jobs has trebled in the past 15 years, and will probably double the present total of 7500 in the city by 1970. He described training needs as courses in fundamentals of electricity, air distribution and heat transfer, and such mechanical skills courses as electrical components handling and sheet metal work. Dr. C. Frederick Pertsch, associate superintendent of schools in charge of the high school division, urged that an industry committee be named to work out with the school system a plan for a three year training program in the vocational high schools.

The Unitary Equipment Div. recently held a national service training meeting at Syracuse which was attended by nearly 100 service managers of distributor firms. In welcoming the group, Russell Gray, vice president of Carrier Corp. and general manager of the division, emphasized the part service should play in promoting sales. "Quality in service is just as important as quality in products to the continued growth

### Thermo-Products

# WINTERand

### AIR CONDITIONERS

. . . are "the good business line"

### \* Nationally Advertised

### \* Dealer Assistance Program

Now you can sell nationally advertised gas or oil heating or cooling units backed with manufacturing integrity. With Thermo Products you get close factory trained assistance and sales creating dealer aids. But more importantly, you can sell winter and summer air conditioning with confidence and freedom from service problems.

### THERMO HEAT EXCHANGERS ARE GUARANTEED FOR LIFE

Imagine! Sell a Thermo Product and guarantee the heat exchanger for life! Special heavy gauge design agitates burning gases to convert more heat at far less cost. Ask us about it.

Write today for information about a profitable franchised dealership.



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NORTH JUDSON, INDIANA

. DENTON, NORTH CAROLINA

## Hottest "Spot" in the Shop

**LECTRO** the NEW miller



Simply depress lever and tongs grip metal at pre-determined pressure, switch is turned on and weld sequence timer is actuated for precise period set on control dial. Thus, every weld is identical until timer adjustment is changed. Pilot light indicates when welder is connected.

This advanced design plus light weight and wide selection

of tongs make the new Miller Lectro Spot the finest welder

Available in three styles: 115v or 230v, 1.5 KVA models for work to 1/8" thickness, both weigh 29 lbs.; 230v, 2.5 KVA model for mild steel to 5/32, weighs 37 lbs.

Complete specifications with tong and tip availabilities, will be sent promptly upon request.

ELECTRIC MANUFACTURING COMPANY, INC. . Appleton, Wisconsin

Distributed in Canada by Canadian Liquid Air Co., Ltd. Montreal

of air conditioning," he said. The service managers were introduced to new training aids, slides and booklets on maintenance. They also were schooled in service procedures for several new products.



MIXED FLOW BLOWER UNIT is being mounted in one of the two test frames between the control room and test chamber of sound laboratory. Operator at right adjusts sound pickup for test

▶ THE TORRINGTON MFG. Co. recently completed a sound testing laboratory at its main plant in Torrington, Conn. According to the company, static air pres-

sure in the test chamber may be varied so that the pressure differential across an impeller unit can be set at any level between 0 and 6 in. of water. The laboratory consists of a  $22 \times 23 \times 16$  ft test chamber, whose ceiling and three walls are covered with more than 600 sound trapping glass fiber wedges, and a separate control room for instrumentation and observation. The new laboratory will be concerned mainly with noise research in air moving devices and the development of new and improved impellers.

- ▶ LOUIS F. DEMMLER, manufacturer's representative specializing in sheet metal machinery, equipment and supplies in the greater Pittsburgh trading area, has established new office facilities in the Investment Bldg., Pittsburgh 22.
- MEMBERS OF THE 1960 Chrysler Airtemp distributor advisory committee are Joe Thiele, Joe Thiele, Inc., San Antonio, Tex.; J. W. Hamilton Jr., Steel City Supply Co., Birmingham; Marty Rothman, M. Rothman & Co., Cliffside Park, N. J.; C. W. Bragg, Bragg Conditioned-Air Supply, Inc., Wichita, Kans.; Sydney Anderson, Los Angeles branch, Chrysler Airtemp; G. C. Webster, Wilson Supply Co., Inc., Washington, D. C.; R. R. Matthews, Royalair Distributors, Dallas; Stan H. Kelly, H & C Supply Co., Akron; and I. C. Goldstein, Globe, Inc., Minneapolis.



**Hand Operated** 

### BENDING Brakes

One Man Operation - Quick Adjustment - Rugged Construction



### FOLDER BRAKES

The simplicity and ease of operration make this a desirable machine for light sheet metal work. Seams and locks can be made efficiently. Capacity up to 20gauge in three sizes of bending lengths of 36, 42, and 48 inches. Foot treadle clamp.



### PORTABLE BRAKES

Set up shop right on the job. Capacity 20-gauge sheet metal in two sizes with bending lengths of 49 and 61 inches.



Descriptive Literature on Request.

### DREIS & KRUMP

7404 S. Loomis Boulevard, Chicago 36, Illinois

# For the Most Complete Line It's EXCELSIOR

- Galvanized Snap-Lock Round Pipe, Elbows, and Angles
- Galvanized Snap-Lock Stack and Duct, Elbows, Angles, Fittings, and Accessories
- Blued, Walnut, and Chrome Plated Stovepipe and Fittings
- O Aluminum Pipe and Elbows
- Stainless Steel Chimney Liners and Fittings for Gas Heat Installations
- AGA Listed Gas Burner Diverters and Accessories
- O Aluminum Dri-R-Vent Equipment

All Excelsior items are cartoned for protection and for convenient handling and storage.

Complete details from your jobber, or

### THE EXCELSIOR STEEL FURNACE CO.

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### **Divisions**

EXCELSION HEATER & SUPPLY DIV.
The Excelsior Steel Furnace Co.
879 Hersey Ave., St. Paul 14, Minn.
Midway 6-7255

EXCELSION HEATING SUPPLY DIV.
The Excelsion Steel Furnace Co.
2 East 3rd St., Kansas City 6, Mo.

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when you install



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Used in slab perimeter heating or combination heatingcooling systems, economical SONOAIRDUCT Fibre Duct speeds construction—helps you hold down initial costs and installation costs without sacrificing quality.

Working with SONOAIRDUCT Fibre Duct, contractors like the long lengths, the absence of sharp cutting edges, the ease of handling and leveling. And, this duct won't chip, crack, or break when dropped—every piece is usable!

Order Sonoairduct Fibre Duct in 23 sizes, 2" to 36" I.D., in standard 18' shipping lengths—special sizes available. Cut to exact length with hand saw. Meets or exceeds F.H.A. criteria and test requirements for products in this category.

See our catalog in Sweet's



SEE OUR EXHIBIT Booth 235 Conrad Hilton

For complete information and prices, write

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Construction Products

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### Beverly Shears MEAN BETTER WORK



### THROATLESS SHEAR

Make straight or intricate cuts in the lightest metals without distortion, yet handle heavier gauges with ease on a BEVERLY — the allon a BEVERLY — the all-around Throatless Shear. Made in 4 models to handle 18 gauge to 3/16". Equipped with High Carbon, High Chrome Blades.



### BEVERLY ELECTRIC **THROATLESS** NIBBLER

Models-capacities to 3/16" mild steel; 10 gauge Stainless. 1725 cutting strokes per minute. Designed for fast, efficient cutting, trimming or slitting. May be used as Bench Shear (as shown) or on floor with addition of column.



INSIDE SLOTTER

8" reach, Inside Slotter, design to make inside cutting and slotting faster and easier. Capacity up to and including 16 ga. mild. Cuts slot  $2^{1}/2^{"}$  long x  $^{1}/8$  " wide with one stroke. Unique arrangement of 5 H.C.H.C. blades assures fast, clean, accurate cutting.



SLITTING SHEAR

All steel welded construction, plus extra built-in strength keeps the "SS-3" Slitting Shear cutting clean indefinitely. No springing of blades, no distortion after use. Slitting capacity 3/16" mild steel; trimming capacity 5/16"; bar capacity 1/4" x 2". Equipped with High Carbon, High Chrome Blades. Made in 3 sizes.

See your Dealer or Write direct for illustrated catalog sheets on Beverly equipment.

### THE BEVERLY SHEAR MFG. CO.

Chicago 43, Illinois



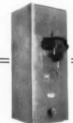
. . when you want to sell QUALITY **ECONOMY** DEPENDABILITY

.. then it adds up to

IN A HEATING SYSTEM

MIAMI!

\* HI-BOY



Heat exchanger 14 ga. steel throughout, cabinet 20 ga., insulated. Fully automatic. Beautiful blue baked finish. \* DELUXE LO-BOY



Basement type, quiet, dependable. Insulated with spun glass, backed with aluminum foil. Large capacity, rubber mounted blower. \* COUNTERFLO



basementless homes. Factory assembled for burner mounting and easy installation. Burns economical No. 2 Oil.

### . . AND HERE ARE THE REASONS WHY!

It takes a real selling job to succeed in today's market. You must be prepared to offer the best possible performance in a furnace, with features assuring a minimum of sales re-sistance. The answer is the MIAMI line of quality heating units, engineered to operate for years at peak performance, and designed to harmonize with the modern trend toward clean, attractive, functional lines.

Yes, the MIAMI line adds up to complete customer satisfaction.

GROSS FURNACE MFG. CO., INC.

24 Broome St. Salem, Virginia



\* DELUXE FLOOR FURNACE

really compact unit. Heavy duty floor grille, cast iron inspection door, over-size ra-diator. All welded, 14 ga. heat ex-changer. Excellent replacement unit.



\* DELUXE HORIZONTAL

Suspended, fired winter conditioners. Perfeet for attic installation in homes: also garages, gas stations, etc.

HENRY R. PATAKY has formed the H. R. Pataky Sales Agency, with offices at 2006 W. Spring St., Lima, O. As a manufacturer's representative, he will cover Ohio and the surrounding areas for manufacturers of heating and air conditioning equipment. He currently represents D. H. Mc-



Henry R. Pataky

Corkle Co., Berkeley, Calif.; Standard Stamping & Perforating Co., Chicago; and Rymco, Inc., Detroit.

TYPHOON AIR CONDITIONING Co. and Typhoon Heat Pump Co., divisions of Hupp Corp., will "shoot for the moon" in their 1960 sales program. The program was recently introduced to more than 200 dealercontractors at a sales conference held in Washington. To emphasize the "shoot for the moon" theme. Tvphoon built a mock-up of a moon rocket on the speaker's platform and introduced each stage of an eight stage sales program with rocket sound effects. John Gilbreath, sales vice president for Typhoon Air Conditioning, offered these sales suggestions:

Check your market coverage to determine that you are reaching all potential customers, not just those whom you are accustomed to doing business with.

Check your sales organization to determine that you have the people who can sell in all the markets you are interested in.

Check your advertising program. Are you using every opportunity, including direct mail campaigns, to broaden your market?

Do you know the architects and consulting engineers in your area, and do they know you?

Are you following up on every contact in order to build on past efforts?

Typhoon's moon rocket, according to Don Petrone. president of Typhoon Air Conditioning and sales vice president of Hupp, is well on its way toward its outer space sales objective. He expects 1960 to top all previous years.

THE PAYNE Co. recently installed an all-gas heating and air conditioning system in a southern California research house. Located in the San Fernando Valley, the house is open for inspection by builders, architects, and utility personnel as well as home

The company's 1960 merchandising program was recently launched with the introductory presentation of new equipment to its own sales personnel, followed immediately by similar presentations to the industry. Publicity programs and sales campaigns promoting the new equipment at the consumer level are the third step in the merchandising program.



AMERICAN ARTISAN, JANUARY 1960

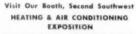
### DURA-VENT THE SUPERIOR GAS VENT SYSTEM

FOR EVERY VENTING REQUIREMENT The Most Complete Line

- 3 thru 20 inch pipe and fittings
- All U.L. LISTED



Now Dura-Vent can provide you with Type B vent pipe and fittings for any job — 3" thru 20". All Dura-Vent pipes and fittings are UL listed. You can be assured that Dura-Vent — the superior system — can meet all building code requirements for Type B vents, any architectural specifications.



February 1-4 — BOOTH NO. 1015 Memorial Auditorium, Dallas, Texas



DURA-VENT CORPORATION

Affiliate of Peerless Manufacturing Div. of Dover Corporation Factory & Western Sales Office, 2525 El Camino Real, Redwood City, Calif. Factory & National Sales Office, 1400 W. Ormsby Ave., Louisville I, Kentucky

### wholesaler doings . .

- THE FRANK J. KERSHER Co., wholesalers of heating, air conditioning and sheet metal products in Wisconsin and upper Michigan, makes use of the fact that reports of company activities are appreciated by local newspapers and provide a means for publicizing the firm at the community level. For example, when Vincent J. Kerscher Sr., vice president and sales manager, and Wilbert M. Hasche, sales engineer, were leaving to attend the conventions of the Northamerican Heating and Airconditioning Wholesalers and the National Warm Air Heating and Air Conditioning Association, Mr. Kerscher saw to it that local newspapers were notified, and he pointed out in his news release that the Kerscher firm holds membership in both national associations.
- ▶ BEN LEWIS JR., specialty products manager for The Palmer-Donavin Mfg. Co., Columbus, was recently elected chairman of the firm's management committee. William Coombs was elected vice chairman and R. J. Woodward secretary.
- ▶ Bluefield Supply Co. has been appointed a distributor of Temco gas heating equipment in a 48-county area. George Glazier will be in charge of Temco sales. Temco equipment will be warehoused at both Huntington and Bluefield.
- ▶ SID HARVEY INC. has a new facility located at 265 St. John St., Portland, Maine. John Garvin, former salesman for Sid Harvey of New England, is manager of the new operation, which is the 45th in the Sid Harvey organization.
- ▶ J. D. Wilson Co., Inc., Milwaukee, will handle distribution of air conditioning products for Carrier Corp.'s Unitary Equipment Div. in three additional trading areas in Wisconsin. New areas to be covered center around Madison, Stevens Point and Wausau.
- EMMETT SMITH, president of Southern Heater Co., Inc., and Ed Clifford, sales manager of Armstrong Furnace Co., recently acted as hosts to 150 Armstrong heating and air conditioning dealer-contractors in the New Orleans area. Mr. Clifford, assisted by Armstrong district manager P. Y. Matthews, discussed sales features of all models of furnaces manufactured by the company.
- Marco Sales, Inc., distributor of Carrier air conditioning equipment in the St. Louis area, has consolidated offices, warehouse, parts, service and show-rooms into one centrally located building, according to Kenneth A. Roffmann, president. The new facility, containing 35,000 sq ft of storage and office space, is located on Forest Park Ave.

Smith's

"one good sheet metal bending tool after another"

180° plus machines



180° Sheet Metal Bending Brake 3 Models: 14, 16, 20 ga. capacity Bending Widths to 48"

Smith's 180° Universal Brake Capacity 18 ga., 26" wide & 20 ga., 36" wide.



No. 30 Smith's Cleat Bender (Bench Model) Capacity 20 ga., 30" wide No. 24 Smith's Cleat Bender Capacity 20 ga., 24" wide Floor Stands for No. 24 and 30 available at extra cost





Cleat Bender Capacity 20 ga. 18" wide



Smith's Sheet Metal Bending tools will give you fast, accurate bending at minimum cost. Cleat Benders and Cleat Bending Brakes are made in a variety of sizes and types to meet virtually any cleat or ductwork requirement in metal up to 18 gauge. Bending Brakes and Universal Brakes are the fastest, most efficient free-hand bending machines on the market. Before you buy any sheet metal bending tool, check the Smith line that includes one good sheet metal bending tool after another. Write for catalogs, prices, and name of your nearest Distributor.

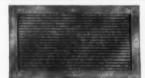
Smith's Cleat Bending Frake combines dut forming and dut flanging in 1 tool. Capacity 18 ga., 26" wide & 20 ga. 36" wide.

1124 ELIZABETH STREET WAUKEGAN, ILLINOIS R. E. SMITH MANUFACTURING CO.

you can be sure of quality... craftsmanship with

AGITAIR registers and grilles are available in a wide range of sizes and styles to meet every requirement of the architect and designer.

Available in all aluminum, stainless steel, bronze, brass, standard steel and plated finishes. Finish thoroughly baked on hard. Will not chip. When you specify these AGITAIR units, you are specifying quality items.



SIGHT TIGHT GRILLES

PLAIN LATTICE GRILLES



Ask your AGITAIR representative for your copy of this 32 page catalog or write to Air Devices Inc.



REGISTERS

AIR DEVICES INC.
185 MADISON AVE. • NEW YORK 16, N. Y.

BETTER PRODUCTS FOR AIR DISTRIBUTION • AIR CLEANING • AIR EXHAUST



### merchandising ideas

▶ CRANE Co. offers a variety of promotional pieces built around the theme of "Step up to new heating comfort." Promotion material includes window and wall posters, direct advertising, customer brochures, advertising mats and sales aids for builder customers.



ALYCE KELLER, Crane Co. receptionist, and Gene Allen, manager, heating products, display merchandising material available to heating dealer-contractors

- THE APPLIANCE CONTROL DEPARTMENT of General Electric Co. is conducting a "weatherman" promotional program for heating controls. Based on the theme "You can't control the weather, but you can control temperatures," the program reminds dealer-contractors that "now" is the time to promote heating control inspection and replacement to assure home owners of comfort during the winter months ahead. Each GE heating control service center receives copies of the U. S. Weather Bureau's "Average Monthly Weather Resume and Outlook," a semi-monthly publication that forecasts the weather for a 60-day period. This provides good conversational material, the company points out, which can be passed along to dealer-contractors for use in leading up to the subject of heating control and then explaining to customers how modern controls adapt to all kinds of weather.
- ▶ A MINIATURE MODEL of a "Bifurcator" fan, small enough to be held in the palm of a man's hand, is being used by sales engineers for the DeBothezat Fans Div., American Machine and Metals, Inc., to demon strate construction and operation features. A puff of cigarette smoke is used to simulate industrial fumes, and the exhaust flow can be followed through the transparent plastic housing which bypasses the motor chamber. A tiny, battery-powered motor turns the direct-drive fan wheel at approximately 4000 rpm.

# The Complete HEATINGAIR CONDITIONING Supply House



### HEATING and AIR CONDITIONING

YEAR 'ROUND and ADD-ON-UNITS

	/-	
Air Filters	Draft Controls	Oil Burners
Attic Fans	Controls	Registers
Blowers	Furnaces-	Stokers
Conversion	All Fuels	Unit Heaters
Burners	Gas Burners	Ventilators
Water Heaters	Fans	Humidifiers

### INSULATION

FOR ALL PURPOSES

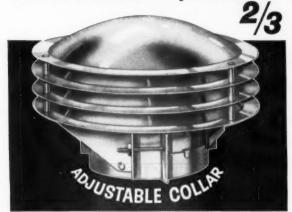
Fiberglas Flexible Aercor
Fiberglas Pipe Covering
Fiberglas Prefabricated Duct
Fiberglas Rigid Board
Aluminum Jacketing
Insulation Accessories.

### BRAUER SUPPLY CO.

2100 WASHINGTON AVENUE . ST. LOUIS 3, MISSOURI

### NEW LESLIE VersaCAP

**Cuts Your Stock Requirements** 



### The Only Adjustable Vent Cap

Versacap's exclusive adjustable collar greatly reduces inventories since four models fit pipe diameters from 3" thru 8½" inclusive. Now, for the first time, dealers can afford to stock a cap for double-wall metal vents.

### Check these Important Features:

- . Reduces your cap inventory by 3/4
- . Wide-range adjustable collar (pat. pend.)
- No down draft
- · Positive draft action (four 360° openings)
- · Clean modern design
- . Bird proof
- . Clog proof from debris, snow and ice
- . Baffles stop rain and snow
- · Available in corrosion resistant aluminum
- . For all fuels . . . gas, oil, coal, wood

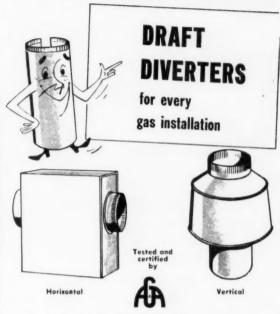
The all new design insures top performance on double-wall metal vents, standard chimneys and any roof terminated vent pipe. Improved performance from the circular louvered design, plus a modern unobtrusive appearance. Versacap is so versatile it can be used for any type of installation. Solve those problem jobs ... eliminate costly call-backs...stock and

install the VERSACAP.

Write today for the new VERSACAP catalog sheet

ESLIE VELDING CO., INC.
2933 W. CARROLL AVENUE • CHICAGO 12, ILLINOIS
Plants in: Chicago and Allanta

# CHAMPION



These Champion draft diverters, vertical or horizontal, are built to AGA recommendations. Tested and certified, each proudly bears the AGA seal. They're shipped to you completely cartoned, as Champion fittings always are. Remember the complete line of Champion pipe and fittings for time-saving, laborsaving installation . . . more profit on every job. Order now — and keep stocked.



120 MORTON ST. PEORIA, ILLINOIS

### Quickdraft... THE WORLD'S SAFEST

POWER DRAFT UNIT FOR INDUSTRIAL, RESIDENTIAL

AND INSTITUTIONAL EXHAUSTING



Provides air power for bulk materials handling!

Exhausts corrosive gases and abrasives!

Quickdraft provides industry, commerce, institutions and homebuilders power draft engineered for economical and efficient combustion regardless of building or atmospheric conditions. Models suitable for every heating or incinerator application . . . eliminate pulsating or chattering, puffing, smoking and sooting. Reduce building costs, no tall, unsightly stacks required. Quickdraft also provides industry with 1/4 inch to 60 inches W.G. static pressure for exhausting corrosive gases, abrasives and paint spray. Heavy-duty, high-pressure models, 6 inches to 30 inches diameter, are available for moving bulk materials or anything that can be moved by air. Because there are no motors, fans or bearings in exhaust line, only Quickdraft avoids costly clogging, corrosion of moving parts or fan failure.

### IMPORTANT NOTICE

For withstanding corrosive gases, all Quickdraft units are available in standard acid resisting vitreous enamel, No. 316 Stainless Steel, rigid plastics (P.V.C.) and with plastic and Fiberglas coatings.



FANS OR BEARINGS IN EXHAUST LINE

Send for QUICKDRAFT ENGINEERING DATA on your application . . . now.

Quickdraft CORPORATION

P.O. Box 87-D Canton 1. Ohio

### merchandising ideas

(Continued)

- ▶ LIMA REGISTER Co. has prepared a list showing 1959 housing starts and estimated starts for 1960 in each state and the District of Columbia. The percentage of gain or loss is also shown in each case, "Are you geared to get your share of this market in 1960?" the company asks, and repeats its slogan: "We recommend a register under every window."
- ▶ A DISPLAY STAND designed for use in a window, against a wall or as an "island" demonstration center in the showroom is offered by Viking Air Products Div., National-U.S. Radiator Corp. The display is 76



"JET ROOM BALANCER" duct system at top of display may be plugged in and operated. Motion is added when streamers of colored paper are taped to discharge nozzle. Pockets contain descriptive folders for each product

in. high, is 25 in. wide at the base. Space is provided for a "Jet Room Balancer" duct system, humidifiers, humidifier plates, filters and a platform for a blower.

J. LEVITT, INC., a distributor for American-Standard furnaces and air conditioning in the Delaware Valley area, recently conducted a furnace replacement contest as a sales incentive to dealer-contractors and also to learn what sales features were most effective in influencing the consumer. Purchasers were requested to complete the sentence: "(Dealer-contractor's name) convinced me that the American-Standard furnace which I purchased was my best buy because . . ." in 25 words or less. Entries were judged by an independent contest-judging organization and the winner was awarded a 1960 color television set. The dealer-contractor who sold the winning furnace was presented with a 1960 Chrysler "Valiant" automobile. Seymour Blau, vice president of the Levitt company, said that by offering an exciting incentive such as the "Valiant" the company could be sure that all its dealer-contractors would study and promote all the sales features.

### THOR QUALITY TOOLS

ARE TIME AND MONEY SAVERS
IN HEATING AND VENTILATING DUCT WORK

**GOV'T LOCK DIES** 



Shear—punch a 5/32" hole—mark point of breakline—ALL IN ONE OPERATION.

Dies available for 1",  $1\frac{1}{4}$ ",  $1\frac{3}{8}$ ", and  $1\frac{1}{2}$ " gov't locks. Hand or foot press operated, or for punch presses.

DRIVE CLEAT NOTCHER



Shears and notches drive cleats up to 3" in width. Capacity 20 ga.

Furnished with 3' table guide. Long strips of metal can be passed through this die and sheared to length, thus saving an extra operation.



See your local dealer or write for catalog #9 illustrating our complete line of sheet metal fabricating tools

865 ESTABROOK ST. THOR TOOL AND DIE CO. SAN LEANDRO, CALIFORNIA



### appointments . . .

▶ RALPH Weaver as manager of market research, a newly created position, for The Lau Blower Co. Prior to his recent appointment, Mr. Weaver was administrative assistant to W. W. Morrissey, blower sales manager. He has been the firm for the past four years.







Robert Zahn

- ▶ ROBERT ZAHN as vice president and general manager of Air Filter Corp. Mr. Zahn was formerly general manager of the Bell-Dyken Nash Co., Packaging Div., and before that he was patent engineer for Delta Power Tool Div., Rockwell Mfg. Co. His new duties will include special work in the developing of new products.
- ▶ R. A. Gonzales as manager of industrial sales in the packaged heating and cooling department of Chry-

sler Airtemp. He was previously application engineering manager for the national service department. He joined the division in 1936 as an engineering supervisor and has had various engineering assignments. He has appeared as a speaker, panel or committee member at numerous industry meetings.



Jack H. Beck



Leo M. Winter

▶ JACK H. BECK as manager of distributor sales and Leo M. Winter as manager of dealer sales for Mueller Climatrol. Both men were formerly assistant sales managers. Mr. Beck will direct distributor sales through regional sales managers, operating from Milwaukee. Mr. Winter will head a force of district sales representatives covering all parts of the country. Reginald C. Drew, Melvin V. James and W. A. McLemore have been promoted to the new positions of regional managers, distributor sales. All will headquarter in Milwaukee. The distributor and dealer sales force will





"I'm looking for GOOD Distributors and Dealers to handle profit packed

### ALAMAZOO WARM AIR CONDITIONERS

"I'm Clyde Whitcomb, president of Kalamazoo Furnace & Appliance Manufacturing Company. "The fine distributors and dealers who repre-sent us deserve much credit for our steady growth and continuing success in the field of warm air heating. Choice territories and ex-clusive dealerships are still available, however.

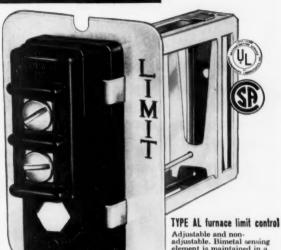
"For those of you who are looking for the best buy, your best buy by far is Kalamazoo. We take pride in the all around fine performance of our units.

"Interested? Call, write, or wire today. Let's discuss the situation.

Featuring the famous patented OCTAGON RADIATOR ... the heart of America's most efficient furnace 41 Models of gas, oil and coal-fired units available.

FURNACE & APPLIANCE MFG. CO.

ROCHESTER ST. KALAMAZOO, MICH.



### NEW THERM-O-DISC THERMOSTATS

Adjustable and non-adjustable. Bimetal sensing element is maintained in a completely exposed position in the air stream for fast temperature response. Temperature calibration and differential can be preset to your specifications up to 300° F. Standard factory differential is 25° F. Can be supplied with a closer or wider differential on request. Adjustable feature at no extra cost. Standard range of adjustment is 90° F. ange also available. Furnished with either 3-inch (AL-3) or 7-inch (AL-7) probe.

for furnace fan and limit control applications



additional information ... write

Adjustable with a range of 90° F. Maximum temperature 300° F. Factory differential is 25° F. Can be supplied with a closer or wider differential on request,

with a snap-acting switch mechanism, provides fast and efficient furnace fan control.

THERM-O-DISC, INCORPORATED mansfield, ohio

# The NEW Majestic ELECTRIC FURNACE



Provides HEATING,
COOLING, FILTERING AND HUMIDITY CONTROL
FOR SINGLE OR TWO-FURNACE SYSTEM —
IDEAL FOR MODERN MULTI-ZONED CONTROL

Majestic pioneers this truly modern concept in residential heating — a system using dirt-free resistance type electric elements, a quiet, belt-driven blower and an effective filter to deliver circulated, clean air to all parts of the house or to any zone of a multi-zoned home.

or to any zone of a multi-zoned nome.

Modulated heat — supplied by one to four banks of resistance elements —
is summoned as needed by modern, automatic controls. Simple wiring at time
of installation determines desired BTU capacity of each element. No power is
wasted — no heat is delivered unnecessarily.

Air conditioning, installed with furnace or added later, is easy to attach to compact, space-saving electric furnace. Humidity control and air purification help make a perfect year-round indoor climate.

Everything considered, it's the best kind of heat for today's better insulated homes. Send coupon for complete literature. See how Majestic's Electric Furnace fits into your custom home planning.

Sand "Electric Warm Air H	eating Manual for All-Season Comfort" and other li	terature.
Name	Title	Charles .
Company		name and elizabeth market
Address		
City	Zone State	



394 Erie Street Huntington, Indiana

### appointments

(Continued)

serve customers in a consulting capacity on management techniques, financing, personnel procurement, marketing and related functions.

▶ HARVEY B. WILGUS as assistant director of sales for the Heating and Air Conditioning Controls Div., Controls Co. of America. He was previously general sales manager of the Automotive and Appliance Controls Div. at Schiller Park, Ill., and has also served as general sales manager of the Redmond Co., which was acquired by Controls Co. of America in 1958. Irving H. Finkler, formerly a sales engineer for the division's Cincinnati sales office, has been transferred to the Dallas office where he will hold an equivalent position. Replacing him at Cincinnati is Herbert H. Rauh, former manager of automotive air conditioning control engineering for Robertshaw-Fulton Controls Co. Mr. Rauh has also been associated with Ranco, Inc. and Westinghouse Electric Corp.



Harvey B. Wilgus



Norman C. Drechsel

▶ NORMAN C. DRECHSEL as manager of Niagara Machine & Tool Works' Boston district office. Territory served by the Boston office includes Massachusetts, Vermont, New Hampshire, Maine and Rhode Island. Mr. Drechsel has been with the firm's central sales office in Buffalo since 1955.

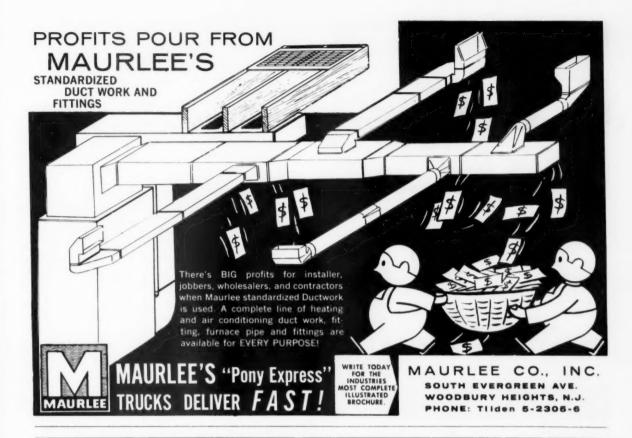


J. T. Barclay



M. R. Greene

▶ J. T. Barclay as central region sales manager for Inland Steel Products Co. He will be responsible for the firm's Chicago, Kansas City, St. Louis, Minneapolis and Milwaukee branch areas. His former area included Milwaukee, Minneapolis and Chicago. M. R. Greene has been appointed eastern regional sales manager and will now be responsible for the Baltimore





Caldwell Hammers Seal Pittsburgh Lock Seams with Speed and Smoothness

### **BURGESS THOMAS COMPANY**

**BOX 287** 

BLOOMFIELD, NEW JERSEY

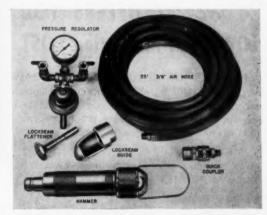
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### **CALDWELL HAMMER**

Saves Time—Saves Labor

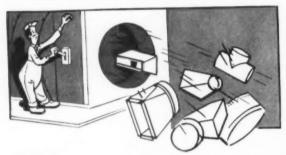
FOR THE

### Sheet Metal Duct Fabricator



The CALDWELL HAMMER
KIT saves Time—Saves Labor





### Moncrief OFFERS YOU LOW Mass-Production COST

MONCRIEF Galvanized or Aluminum Fittings are precision built by skilled workmen equipped with automatic machines that accurately cut and form each Fitting, at low mass production cost. These savings are passed on to you, in a quality product uniform in design and construction.

Why not take advantage of these savings by ordering MONCRIEF Pipe and Fittings TODAY?



Send for FREE Catalog.

MONCRIEF FURNACE COMPANY

676 Hemphill Ave., N. W., ATLANTA 1, GA.

### appointments

(Continued)

and New York branch areas in addition to his former area which includes the Detroit. Cleveland, Cincinnati and Buffalo branches.



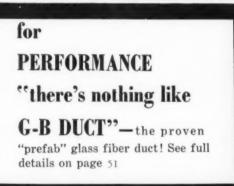




William V. Hartleh

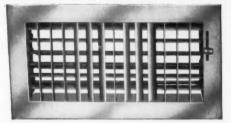
WILLIAM V. HARTLEB as a district representative for Milwaukee Electric Tool Corp. Mr. Hartleb's sales territory will include Washington, D.C., Delaware, Pennsylvania, West Virginia, Maryland and Virginia. He will have headquarters in Baltimore. Patrick J. King has also been appointed a district representative and will serve a territory including parts of Illinois and Indiana. He will headquarter in Chicago.

W. B. FORREST Co., Detroit, as a manufacturer's representative for the Elgen Mfg. Co.





Detroit 8, Michigan



MODEL AV-7-AIR VANE HIGH EFFICIENCY TYPE For cooling and heating, four-way deflection with multi-shutters



ARRO-FLO DIFFUSOR AF-20" and AF-30"

HIGH EFFICIENCY BASE-BOARD TYPE OUT-OF-WALL REGISTER FOR BOTH HEATING AND COOLING PUR-POSES. Our distinctive Arro-Line styling blends with any surroundings, measuring only 3\%" in height, allowing for ideal installation under windows.

> Write for Catalog GRILLE AND

REGISTER CO.

10740 Broadway Ave., Cleveland 25, Ohio

- . TOO tough FOR VENTILATION
- . TOO big FOR REFRIGERATION

Laundries . Foundries Dry Cleaners . Factories Warehouses • Florist Shops • Restaurants • Etc.



WRITE TODAY FOR LITERATURE

Hopeless" cooling problems are easily and economically solved with CORONET BRAND evaporative coolers.
Great volumes of filtered, cooled air clear out sweltering heat in large-area hot spots. Research proves that morale and working capacity go up as the temperature goes down . . . an installation soon pays for itself in startling production increases!

And best of all, the top-quality CORONET BRAND air coolers are low in initial cost, operate next-to-nothing!

Get in on the ground floor of the new idea in industrial cooling and cash in from the sale of coolers plus the highly profitable installation work.



PALMER MANUFACTURING CORPORATION Dept AA 2200 West Fillmore - Phoenix, Arizona

### Profit Minded Dealers **Demand Buckeye Quality**

TIME SAVING



PIPES and







Do a better job . . . faster . . . save bench time with Buckeye QUALITY Pipes and Fittings. No spot welding. Metal seaming adds rigidity to collars and fittings . . . side take-offs matched for easier connections . . . snap-tight pipes . . . just push together, edges interlock.



NOW GREATER EFFICIENCY IN A LABORATORY PROVEN\* PERMANENT FILTER

Better filtration . . . no recoating ever . . . completely washable . . no surface loading . . . Underwriter Laboratories, Inc. approved. Full range of sizes. Sales building display with stuffers available. Write or send coupon for literature.

Name and results of Leading Independent Laboratory Test, on

JOBBERS! MR'S!

Attractive territories open Write, wire or call

Contact	your	Jobber	or Mail	Coupon	for	Catalog
Please	check	info	rmation	want	ed	
	m.*	1 00				

Send Pipe and Fittings Catalog Send Perma-Clean Filter Literature

Your Name Company

Address City

Your Wholesaler Address

City .

State

897 Ingleside Ave.

MANUFACTURING, INC. Columbus 8, Ohio



### ✓ AIR LOSS ✓ AIR DISTRIBUTION

IN 30 SECONDS WITH

SAFE · FAST · POSITIVE

Kilgore SMOKE CANDLES

> Write Today For Catalog Kilgore, Inc., Westerville, Ohio

for
NOISE CONTROL

"there's nothing like
G-B DUCT"—the proven
"prefab" glass fiber duct! See full
details on page 51







John J. Millner

- ▶ James J. Grambley as a sales representative for The C. A. Olsen Mfg. Co. Mr. Grambley, who has been with the firm since 1946, will cover Ohio and West Virginia as well as part of Kentucky and Pennsylvania. John J. Millner will cover Virginia, North and South Carolina and part of Tennessee. Mr. Millner was formerly southeastern field representative for the Crane Co.'s heating and air conditioning division.
- Marshall, Neil & Pauley, Inc., with offices in Houston and Dallas, as factory representative for Western Engineering and Mfg. Co., Venice, Calif. Other new factory representatives are Foster-Bray Co., Inc., Seattle; George D. Montag, Portland, Ore.; and General Equipment Co., Spokane, Wash.

# in individual cartons! SCHAEFER FLUE BRUSHES

- No more pricked fingers or danger from rusted bristles.
- · Easier to display, merchandise and handle.
- Longer-wearing SILVER-BRITE RUSTPROOF WIRE or Black Tempered Wire.
- Every Carton clearly marked as to number, shape, size or specifications.
- Each and every brush in its own carton insures clean stock and eliminates re-wrapping.
- There's a correct Schaefer Brush for every industrial and domestic use.

Schaefer's special alloy "Silver-Brite" rustpoof spring steel wire has been developed for longer wear, more effective cleaning. Here's extra value, extra satisfaction in any brush and each is individually packaged for easier handling.

NO INCREASE

SCHAEFER BRUSH MFG. CO.

117 West Walker St. Milwaukee 4, Wisconsin Write for SCHAEFER Catalog on flue and furnace brushes, or for information on any special brushes for specific requirements

MUY SCHAFFER-TI'S SAFE

# ASSURES TIGHTEST POSSIBLE SOLDERED SEAMS

. . . without any acids

. . . without any cleaning

. . . use 50-50 or 95-5 or other

soft solders with equal assurance



With LA-CO Flux you can be sure of sound, leak-free soldered jobs every time. Its modern formulation clears the way for a perfect alloying of solder and metal . . . and stretches your solder dollars too.

I.A-CO Flux makes physical cleaning and sanding old-fashioned. All the muscle is built right in, yet it costs no more. It works right through metal oxides, oil and grease — definitely fluxes right through the chemical treatment coating on galvanized metals.

Yet, with all this self-cleaning power, LA-CO Flux is completely free of acids. It will not stain metals or injure workers . . . is safe for use with foodstuffs, oxygen lines, etc. LA-CO Flux (Regular) is used for soft soldering of copper, lead, galvanized iron, tin, zinc and other common metals. See for Yourself! Hack-saw a LA-CO Fluxed soldered job in half and see the perfect bond. Write on company letterhead for sample of LA-CO Regular Flux (Liquid).

There are other LA-CO Fluxes for all specialized needs . . . in liquid, paste or handy stick form. Flux problems: Let our laboratories help; no obligation, of course.

The Lake Chemical Co., 3072 W. Carroll Ave., Chicago 12, III.

# SELL AND INSTALL THE UNSURPASSED OG-56 OIL-TO-GAS CONVERSION UNIT by BANNER BURNER • Flawless Design and Construction. • No-Burn-Out, One-Piece Cast Iron Venturi and Flame Spreader. • Fast, Easy Installation ... Fits through Four-Inch Oil Burner Sleeve. • M. H. Controls, Available in Powerpile or 24-Volt System. • 60,000 to 150,000 BTU Input. Write for complete details BANNER BURNER CO. 227 FAST INDIANOLA AVENUE YOUNGSTOWN 7 OHID

MAKE SURE YOU HAVE A

### for THERMAL PROTECTION "there's nothing like

G-B DUCT"— the proven "prefab" glass fiber duct! See full details on page 51

ORIGINAL REPAIR PARTS for FURNACES PUT OUT BY

AMERICAN FURNACE & FOUNDRY CO.
HOMER FURNACE CO.
MARSHALL FURNACE CO.
MONITOR FURNACE CO.
RUDY FURNACE CO.
AGRICOLA FURNACE CO.

Repairs for other makes such as: PENINSULAR, LAUREL, GARLAND, HOME, HOLLAND, KALAMAZOO, JEWEL, IDEAL, WILLIAMSON, ETC.

Story 1-2825 - Write - Wire

LIVINGSTON, INC., MARSHALL

Your warm air heating supply house

# Capac

for bonding insulation to ducts and pipe covering lap seams

- MOST COMPETITIVE PRICING IN INDUSTRY
- YEARS OF EXPERIENCE IN THE DEVELOPMENT AND MANUFACTURE OF QUALITY ADHESIVES
- NOW SELLING DIRECT THROUGH DISTRIBUTORS

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COMPANY	 			
STREET	 			
CITY	 . ZON	E ST/	ATE	

CAPAC MANUFACTURING CORP.

P.O. BOX 186

CAPAC, MICHIGAN

### ORNAMENTAL LEADER STRAPS-



RIVAL" & Copper & Zinc-3", 4", 5" FITRITE" L Copper & Zinc, 3", 4" "FITRITE" Jr. NOT ILLUS-TRATED-Copper, Zinc & Alum. 3"-4" SOLD THROUGH JOBBERS ONLY

### ADJUSTABLE PIPE SNOW GUARDS



3 pipes 3/4" 1.P.S. For slate, metal, tile & composi-tion roofs. "FIT-RITE" JR. not



new or old "FITRITE" SKYLIGHT GEARING



3/4", 1/2", 1" Hook or chain operation 1/2" Gearing sembled 20" pipe

### "FITRITE" ROOF STRAINERS

BEEHIVE 3"-8" round. Also 3" × 4", 4" x 5"



"FITRITE" SAFETY HOISTING HOOK

with gravity operated sliding sleeve

"FITRITE" 3-WAY CLAMP

A New Vise-grip Made Exclusively For Us



"FITRITE" CAST BRONZE HINGED LEADER BAND



Mode for 3" 8 4" square corrugated also 3" & 4" round

"FITRITE" ADJUSTABLE SWING CHIMNEY JACK FRAME Five sizes For 6"-10" pipe.

To Protect Trade Please Use Printed Stationery

7 GEORGIA ST. SO. HACKENSACK, N.J.



for **ECONOMY** "there's nothing like G-B DUCT"- the proven "prefab" glass fiber duct! See full details on page 51

### appointments

Decar Berg as sales representative in western Pennsylvania for the Warm Air & Cooling Div., the Burnham Corp. Mr. Berg was at one time national service manager for Gar Wood Co. and has also been a sales engineer for Morrison Steel. Inc.





Oscar Berg

Robert A. Marquis

- ROBERT A. MARQUIS as a member of the sales staff of The Johnson Furnace Co. Mr. Marquis was formerly with Minneapolis-Honeywell Regulator Co., serving the Wisconsin area. In his present postion, he will handle the sale of "Aire-Ease" furnaces in the Midwest.
- ARTHUR E. DUWE as representative handling the sale of "DUST-magnet" electrostatic air filters in Milwaukee and the surrounding area for Stoddard Indus-

### MAKE A SLOW JOB FAST AND EASY!

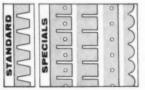


With a Ruoff Notcher you can notch flat or curved sheet metal at speeds up to 18 feet per minute. Automatic feed and depth of notch are adjustable.

Ten times as fast as hand cutting! Time for measuring and layout eliminated!

Notches up to 21 gauge sheet with 1/4 hp - 110 volt motor, up to 16 gauge with larger motor.

Ruoff Notchers are supplied complete with floor stand. Just plug it in and you are ready to go. Immediate delivery.



te Ruoff & Write Write te Ruoff &
Sons, Inc., Bellmawr
4, N.J., for complete
specifications. In Canada: Brown Boggs
Foundry and Machine
Co., Ltd., Hamilton Ontaria.

Distributors: Franchise available in some areas. WRITE TODAY





SWIVEL HEAD SQUEEZER TONGS

For closing Government box lock connection of duct work and all standing seams. Swivel hea makes tongs usable on all four sides, either vertical or horizontal position.

for a complete line of HANDY TOOLS AND EQUIPMENT . . . 500

CLEAT DRIVE NOTCHER Handles up to 3" wide, 22 ga. or lighter. Hand or foot opera-tion. Mounts on bench, or on job with clamps, or bolts and

P.O. Box 5035 REINER & CAMPBELL CO., INC. Newark 5, N.J.

PUNCH >

For fastening slips or seams on ducts. Will push a "half moon" thru 3 thicknesses of 18-ga. steel. No ham-mering or flattening out to fasten



Fastest, most accurate on the market. Two sizes for circles up to 36" and 48". Removable steel points, or pencil. No center punch.





# classified

Is the quick, economical way to find what you're looking for. Check the classified page each and every issue for real bargains and hard to find items. It's a quick and sensible means too, of disposing of tools, equipment, and anything else for which you no longer have use. Check the classified page for rates.

# advertising . . .

FALLSINGTON "OVER THE LOCK" PIPE ROLLERS

3' & S' MODELS

Ideal for Manufacturers of Snap leck pipe. Hundreds in operation!



Another Profit-making machine by

Whole-

salers:

Free

Catalog

Write For

BRUSHES

For Cleaning

FALLSINGTON MFG. CO.

Fallsington



### for **PERMANENCE** "there's nothing like G-B DUCT"- the proven

"prefab" glass fiber duct! See full details on page 51

Dont specify any heating and cooling equipment until you find out about the guaranteed advantages of

THE Thermo-Base SYSTEM OF AIR DISTRIBUTION

It provides a degree of comfort never before possible. Thermo-Base guarantees "gentle" warmth and "gentle" cooling through perfect diffusion of air.

takes the forced air "feel" out of the forced air system.

Thermo-Base extended baseboard air distributors are adaptable to any type of construction: basement, crawl space, or concrete slab; and any building, old or new - residence, store, church or public buildings.

GERWIN INDUSTRIES, INC. INDIANA MICHIGAN CITY



THE HEART OF THE HEALTHFUL HOME

At last! A remarkably efficient low-cost humidifier for the forced hot air heated home is available. No electricity—No time-consuming installation—No expensive maintenance calls. The Reliable Humidifier is easily installed in a matter of minutes with one simple water pipe connection, and delivers years of dependable, trouble-free, healthful humidification at the desired 35% to 45%.

Be sure to write today for detailed literature, price list, and promotional assistance information

Qualified Manufacturers' Representatives Inquiries Invited

RELIABLE EQUIPMENT & SUPPLY CO., 727 FAIRFIELD AVENUE, KENILWORTH. NEW JERSEY

### appointments

(Continued)

tries, Inc. A. P. Equipment Co., St. Louis, Mo., will represent the firm in St. Louis and the surrounding territory.

▶ F. Roger Byrnes as distributor representative in the Midwest for the "Pop" Rivet Div., United Shoe Machinery Corp. He will make his headquarters at 20 E. St. Charles Rd., Villa Park, Ill., and will cover Wisconsin, Minnesota, Iowa and northern Illinois. Kenneth E. Noyes has been appointed sales representative in the New England area.

### **O**hituary

### Marren G. Jemings

Warren G. Jennings, retired vice president of the Minneapolis-Honeywell Regulator Co., died at Hyannis, Mass., after a long illness. He was 73. Mr. Jennings joined the Honeywell firm in 1912 and was a branch manager in Milwaukee, Chicago and Boston. He was made a vice president in 1927 and retired from the company six years ago. He is survived by his widow, Mrs. Dorothy Jennings.

### UNION SHEET METAL SUPPLY, INC.

### SEAMLESS, LONG-LENGTH GUTTER - TO YOUR SPECIFIED LENGTH UP TO 32 FEET

WITH 3 INCH SQUARE CORRUGATED CONDUCTOR PIPE AND "A" OR "B" ELBOWS

(UNION MADE BY AF of L SHEET METAL WORKERS)

WE WILL SEND FULL INFORMATION AND PRICES ON YOUR REQUEST

FURNACE PIPE AND FITTINGS

5", 6", 7", 8", 9" SNAP-LOCK ROUND PIPE 5 FOOT AND 2 FOOT LENGTHS, WITH ELBOWS AND BOOTS

16722 MILES AVENUE

**SKyline 2-0660** 

SOME PROTECTED
TERRITORIES AVAILABLE
TO MANUFACTURERS
REPRESENTATIVES

CLEVELAND, OHIO



### STAMPINGS & SPINNINGS

Zinc Ornaments Available From Stock. Copper, brass, bronze, aluminum and stainless steel ornaments made up promptly.

If you don't bare catalog K, send for it NOW

MILLER & DOING

89 ADAMS STREET

BROOKLYN, N.Y.

# for QUALITY "there's nothing like G-B DUCT"—the proven

"prefab" glass fiber duct! See full details on page 51

### GO TO GOETHEL FOR FAST SERVICE . . . WE HAVE WHAT YOU NEED



FULL BLAST GATES 3 and up STOCK

GASKETS BLOWPIPE **ELBOWS** DUST COLLECTORS

& FITTINGS PVC PLASTIC HOODS -HALF BLAST PIPE - ELBOWS 3" to 12" STOCK

GATES 3" Immediate ship-ment on stock items. Write for price list.

PIPING 1 10' LENGTHS. 7 & LARGER. 16 ga and LIGHTER

A BALL JOINTS

Alfred Goethel Sheet Metal Works, Inc. 3218 W. Fond du Lec Ave. Milwaukee 10, Wis.



New comfort performance LET US QUOTE ON YOUR PROJECT REQUIREMENTS

HEATING and COOLING EQUIPMENT

THE MEYER FURNACE COMPANY PEORIA, ILLINOIS

### Manufacturers' Agents...

We are occasionally asked by our manufacturer advertisers to suggest the names of manufacturers' agents in various sections of the country whom they can contact in regard to representation of their residential and small building heating, sheet metal, and air conditioning products.

If you would like your name listed on our records for inquiries we may receive on your territory, we invite you to write us. There is no charge in connection with this service.

### AMERICAN ARTISAN

6 North Michigan Avenue, Chicago 2, Illinois

### CLASSIFIED **ADVERTISING**

Rates for classified advertising are 12 cents for each word including heading and address. One inch \$6.00. Count seven words for keyed address. Minimum \$2.00 for each insertion. Cash must accompany order. Closing date 20th of month preceding issue.

### SITUATIONS OPEN

EXCELLENT OPPORTUNITY — for qualified salesmen with established manufacturer of long line of quality residential heating and air conditioning equipment for all fuels distributed through heating whole-salers. Growth potential requires full activity in two territories: Northeast area surrounding and including New York State; Middle Atlantic states of Maryland, Virginia, and the District of Columbia. Products backed by strong merchandising and promotional program. Forward complete resume and snapshot to: The Rybolt Heater Company, 615 Miller Street. Ach. gram. Forward complete resume and snapshot to: The Rybolt Heater Company, 615 Miller Street, Ash-

Superintendent for general sheet metal shop. Middle west location, 100,000 population. Must be qualified in architectural sheet metal, mechanical sheet metal, and custom stainless fabrication. Give complete account of experience. Reply Key 1158, American Artisan, 6 N. Michigan Ave., Chicago 2, III.

### BUSINESS OPPORTUNITY

Business for Sale -- heating and cooling firm located Business for Sale — neating and cooling him located in small college community which has good diversified industry surrounded by rich agricultural area of Illinois. This is the Number One business within a radius of 30 miles, 25% annual return on investment easily possible. Reply Key 1172, American Artisan, o N. Michigan Ave., Chicago 2, 111.

### AGENTS WANTED

Manufacturers representatives desired to handle full line of residential heating and air conditioning equipment for long established manufacturer. Ferritory open in the state of New York, and also in Maryland, Virginia and the District of Columbia. An excellent opportunity for an aggressive and sales minded individual or organization with required strong wholesale following. Address Key 1176, American Artisan, 6 N. Michigan Ave., Chicago 2, III.

PLAN FUR PROFITS" with a complete line of oil and gas Warm Air Furnaces and Air Cooling Units.
... many models, type3 and sizes. Trouble-free, compact, easy-to-install units.
... backed by year of business.—satisfed customers. Sales aids, literature available. New Plan offers highest commissions, best discounts, account protection and sales assistance. Write Now! List lines and territories in resume. Address Key 1174, American Artisan, 6 N. Michigan Ave., Chicago 2, 111. 'PLAN FOR PROFITS" with a complete line of oil

Manufacturers agents - manufacturer of quality line Manufacturers agents — manufacturer of quality line of UL approved prefabricated chimneys desires top flight representatives in states east of the Mississippi (Florida, Indiana, parts of Kentucky, Illinois, One excluded) to establish distribution to heating and building supply jobbers, Address Key 1739, American Artisan, 6 N. Michigan Ave., Chicago 2, Ill.

Manufacturers Agents — Leading Eastern manufacturer of Pre-Fabricated Pipe, Duct, and Fittings seeks persons who are presently calling on heating and air conditioning wholesalers and jobbers in New York State, the Pittsburgh area, West Virgington, Tennessee, Kentucky and Ohio. Write, stating qualifications and experience to Key 1171, American Artisan, 6 N. Michigan Ave., Chicago 2, Ill.

### FOR SALE

SHEET METAL MACHINES. Brakes: 36", \$37.00. Box: \$95.00; 5' floor, \$80.00. Shears: 7", \$18.50; 24", \$42.00. Free folder. Vyke Mfg. Co., E4158 Jason, Denver 11, Colorado.

### AGENTS WANTED

MANUFACTURER'S AGENTS — Our full line of light commercial and residential heating aid air conditioning equipment is open in the states of Ohio, Indiana,

Alabama.

We are an old company, AAA rated and financially responsible. Our product is excellent and priced to sell in today's market. We want to connect with a top flight agent organization now actively covering the trade and one who has a real following among distributors, dealers and contractors who service the air conditioning field.

If you feel you can offer what we want and wish to connect with a progressive company we will appreciate your prompt answer directed to Sales Manager, Key 1170, American Artisan, 6 N. Michigan Ave., Chicago 2, 111.

Manufacturer of Round Ceiling Diffusers — Registers and Grilles seeks qualified representation in Colorado, Utah, Texas, Oklahoma, Tennessee, Missouri General Areas, to establish distribution among Heating, Air Conditioning jobbers, Reply Key 1167, American Artisan, 6 N. Michigan Ave., Chicago 2, Ill.

### **BUY BONDS!**

### SERVICE SECTION

CONSISTENT USE OF SPACE IN THIS SECTION IS A GOOD INVESTMENT

### Move it easier with

THE "BANTAM" ROLLER DOLLY



Our Guarantee: 30-day Trial, Full Refund if not Satisfied.

### announcement . . .

BABY MODEL ..... \$ 9.95 carrying cap STANDARD MODEL .... \$14.95 DELUXE MODEL ......\$19.95 in. long, 4 ton carrying capacity OTHER LENGTHS

\$1.00 per additional six inches or part thereof

We are proudly announcing the arrival of an all new modern Roller Dolly. It is the all metal constructed "Bantam" dolly with heavy duty ball bearings. These portable dollies weigh just 5½, 10 or 13 pounds, and are 4" wide and 1¼" high. It is light weight for easy handling yet will hold up to 4 ton capacity. This "Bantam" air conditioner and equipment dolly satisfies the need for a low cost one-man mover.

This rugged roller permits one man to easily move and turn a summer air conditioner, warm air furnace, water heater or any other similar heavy equipment crated or uncrated.

order from your wholesaler or write . . . HAASER SALES CO., 410 Justice St., Fremont, Ohio



discounts. Effect assured by installing Monmouth Humidifers. Simple installing and greater customer satisfaction mean larger profits.

CLEVELAND HUMIDIFIER CO. 7802 Wade Park Ave. Cleveland 3, Ohio

### Thanks for Your Help!

REHABILITATION

SISTER KENNY FOUNDATION

Minneapolis 2, Minnesota

### RECLAIM LOST HEAT WITH A Hampden FREE HEAT SAVER



The Hampden Free Heat Reclaimer will blow heat to any room. Clamps outside smoke pipe, cannot affect draft. No

tubes to soot up, no cleaning.

Controlled by thermostat — wired, adjusted and tested at factory. Dealers-distributors wanted. Write today

HAMPDEN HEATING SUPPLY 93 Broad St., Springfield, Mass.

PROVEN - the most important advancedesigned for the betterment of the forced air heating industry.

National Headquarters



OF FORCED AIR HEATING!

automatically modulates blower speeds Send for FREE illustrated brochure

NATIONAL MODULATION CO. 2730 N. Hy. 61, St. Paul 9, Minn. -----

### TOOLS for the ROOFING CONTRACTOR

AXES BRACKETS BROOMS BUCKETS CAULKING GUNS CAULKING CEMENT FELT LAYER

HOISTS-PORTABLE HOISTING WHEELS HOOKS "HOTSTUFF" CARRIERS INSULBRIC CUTTERS KETTLES KNIVES LADDERS LADDER JACKS KNOT BRUSHES

FREY PATENT CABLE CORD SOFT YARN GLASS MOP BELLS MOP HANDLES NAILS, CONCRETE ROPE SCRAPERS SLATERS TOOLS TROWELS WHEELBARROWS

FRANK P. FREY & CO.

2634 W. MADISON STREET

CHICAGO 12, ILLINOIS

### CUT INSTALLATION TIME KWIKHANGER Hammer knife edges into joist,

pick up pipe and strap it in. Fits 4" through





two bolts like a d on class B vent subfloor or ceiling 4" 5" 6" 7" drawband on Nail to subflo Automatic 1"
Dealer, Wholesalers, Agents, write

LANE SHEET METAL, INC c/o Horb Gibson 5634 E. Glenmoor Rd., Hopkins, Minn. EXPECTING A CHECK??? You'll get it quicker if you give

your postal delivery zone number with your address.
The Post Office has divided 106 cities into postal delivery zones to speed mail delivery. Be sure to include zone number when writing to these cities; be sure to include your zone number in your return address - after the city, before the state.

Rates for display space in the Service Section are \$12.00 per inch per insertion. Oneinch minimum space accepted. Closing date — twentieth of the month preceding issue.

### \* FAST HEATING CAPACITY heats two 12-pound coppers in

- \* NO REPAIRS NECESSARY heavy cast body withstands
- BURNER STAYS CLEAN dirt proof guard protects the
- FIRE BRICK FLOOR concentrates heat, protects work benches

### ADDIS No. 2 SOLDERING FURNACE

Write direct or contact your nearest distributor



P. O. Box 2505 Houston, Texas

CHICAGO

SMITH Cleat Benders PEER

WILDER

Hand Brakes Press Brakes

Sant Walders

BLACK & DECKER Electric Tools WYSONG & MILES

MONCRIEF-LENOIR

### Pittsburgh Lock Opener

**Opens** Curved or Straight THOUSANDS IN USE



\$55.00 prepaid if check sent with order. Money Back Guarantee

### BRISTOL EQUIPMENT

East Hartford, Conn.

### "CORRECT PRACTICE in OIL HEATING"

This special series covers every angle of oil This special series covers every angle of oil burner work, including arrangement of shop stocking parts . . record-keeping . installation procedures . . the handling of crews . . how to make heating surveys . . how to size combustion chamber . . how to install thermostat . how to start the burner . . . how to use testing instruments . . . and how to operate a service department. It contains, as well, a complete list of causes and cures of oil burner trouble that will serve as a reliable guide in making service calls.

Every shop handling oil burner jobs should own this book. Full size, 8½ by 11 inches — 57 pages of practical helps. Send \$1.00 for a copy to the address below

KEENEY PUBLISHING COMPANY 6 No. Michigan Ave., Chicago 2, III.

### Central-West has it!

ANY TYPE, ANY SIZE

### SHEET METAL MACHINES & TOOLS

Power Shears Foot Shears Retary Machines Slip Rolls Mechanics' Tools

WHITNEY Punches Foot & Power Presses

LOCKFORMER
Pittsburgh Machines
Cleat Machines
Band Saws SAVAGE

When in Chicago, visit our Machinery Sh

COMPLETE LINE OF SHEET METAL & VENTILATING SUPPLIES

### CENTRAL-WEST MACHINERY CO.

FREE catalog!

335 S. WESTERN AVE

CHICAGO 12. ILL.

Power Square Shears Power Rolls

PHONE: HAymarket 1-0900

### FLOAT VALVES for

Evaporative Coolers, Poultry Froughs, etc.

Operates in 1" of water. DAN MOREY 814 S. Robertson Los Angeles 35, Calif.





SO SOFT RUBBER KNEE PROTECTORS EVERY ROOFER SHOULD HAVE A PAIR. PRICE \$2.50. ORDER YOURS TODAY.

> JOHNSON LADDER SHOE CO. EAU CLAIRE, WIS

### GUTTER ANCHORS

Cam-Action Type "A"

Fits all styles of inverted bead Gutters. Galv. Copper, Alum. ALSO

Other types and sizes in stock for immediate delivery.

Ask your jobber, or write us. 6549 N. Nixon Ave., Chicago, III. Tel. NE 1-1267

If you bend or break more blades than you wear out, solve your problem with -

Try It Yourself!

FREE

Blade and literature

on request.



Designed to fit -

MILWAUKEE SAWZALL . RCS SUPERSAW SKIL RECIPRO SAW . PORTER-CABLE MULTI-SAW and many others

Independent Blade Co. Div. WESTLUND INDUSTRIES East Haven 12, Connecticut



# ASK YOUR WHOLESALER for the

FINEST

UNI- FIT PIPE & FITTING



FOR THE HEATING AND COOLING INDUSTRY





Modern Design ★ Modern Packaging ★ Modern Distribution

### ARMSTRONG FITTINGS CO.

P. O. Box 1356

DES MOINES, IOWA

# USE THIS CARD TO GET MORE INFORMATION ABOUT PRODUCTS ADVERTISED IN THIS ISSUE

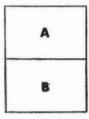
The numbers on this card are page numbers of advertisements in this issue.

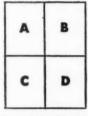
Circle the number on the card below that represents the page number of the advertiser in whose products

you are interested. If advertisement is two or more pages only first page is listed. If a fractional page ad, the letter following the number indicates position on the page. For Service Section advertisers, please write in name of company on line provided.

### TO IDENTIFY FRACTIONAL PAGE ADVERTISERS

A	В





A	В
С	D
E	F
G	н

You can get the page number directly from the advertisement or from the Advertisers' Index or by referring

to Part I of the Directory where products advertised in this issue are classified.

	IFC	3	5	6	7	8	9	10	11	12	13	14	16	18	20	21
	22	25	26	29	30a	30b	31	32	33	34	35	36	38	40	42	44
	46	47	48	50	51	52	54	55	56	57	58	60	61	62	43	64
	65	66	67	70	71	72	73	74	75	76	123	124	125	127	129	131
	133	135	137	141	142	143	144	145	146	147	148	149	150	151	152	153
	155	157	159	160	161	162a	162b	163	1640	164b	165e	165b		168	169	170e
	170b	171	172	173	175e	176	177	178	179	180	1810	181b	182	1838	183b	184c
	184b	185	186	1870	187b	188	189a	189b	190	191a	191b	192 198d	193a	193b		195e
	1956	196a	196b	196c	196d	197a	197b 201d		198a 201f	201e		202b			199c	
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NAME				****					PUSII	ION .						********
COMPA	NY															*******
						CITY					ZONE		STA	TF.		

# ...for free information about products advertised in this issue

Tear out and mail this handy postage-paid card to American Artisan after circling the page numbers of advertisers in whose products you are interested on the reverse side. We will notify the manufacturer of your interest and he will forward the information you request.

### a reader service by AMERICAN ARTISAN

FIRST CLASS Permit No. 13250 Chicago, Illinois

BUSINESS REPLY MAIL

No Postage Stamp Necessary If Mailed in the United State

POSTAGE WILL BE PAID BY -

AMERICAN ARTISAN

6 North Michigan Avenue

**CHICAGO 2, ILLINOIS** 



# - AMERICAN ARTISAN 1960 DIRECTORY

OF

How to use the listings

RESIDENTIAL AIR CONDITIONING, WARM AIR HEATING
AND SHEET METAL PRODUCTS

### Part 1—Products Advertised In This Issue

Page 3d

For the names of the manufacturers of products advertised in this issue, and the numbers of the pages on which their advertisements appear, look in Part 1, where the advertised products are classified in "directory style" with the noun governing. Page numbers of manufacturers' advertisements published in this issue also appear on the last page of this yellow Directory Section.

### Part 2—All Products Classified

Page 8d

If you want to know the names of one or more manufacturers making a certain product, look in Part 2, where all products are classified alphabetically in directory style with the noun governing (for instance, Forced Warm Air Furnaces are listed as Furnaces, Forced Warm Air).

### Part 3-All Trade Names

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If you have the trade name of a product and want to know who manufactures it, look in Part 3, where trade names are alphabetically listed. Trade names the same as or identifiable with the company name are not listed. Manufacturers with such trade names can be readily identified under their product classification in Parts 1 and 2.

### Part 4-All Manufacturers' Addresses

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For the complete name and address of any manufacturer, look in Part 4.

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American Artisan
6 North Michigan Ave.
Chicago 2, Illinois

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### Section of

### **American Artisan**

1960 DIRECTORY OF RESIDENTIAL AIR CONDITIONING, WARM AIR HEATING AND SHEET METAL PRODUCTS

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The products classified in Part 1 of the Directory Section are only those actually advertised in this issue. For the complete listings of these and other products made by all manufacturers, see Part 2, starting on page 8d.

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### Section of

### American Artisan

### 1960 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

[Part 2 - ALL PRODUCTS CLASSIFIED]

### ABSORBERS, SOUND, DUCT SECTION, PRE-FABRICATED, FOR NOISE CONTROL IN DUCT SYSTEMS

General Sound Control, Inc., Los Angeles, Calif. Hansson, Inc., Elof, Acoustical Div., New York, N. Y. Industrial Acoustics Co., Inc., New York, N. Y. Insul-Coustic Corp., Maspeth, N. Y. Koppers Co., Inc., Metal Products Div., Baltimore, Md. Silence, Inc., Farmingdale, N. Y. Sound Reduction Corp., East Hartford, Conn. United Sheet Metal Co., Inc., Columbus, O.

### ABSORBERS, VIBRATION FOR REFRIGERANT LINES

Anaconda Metal Hose Div., American Brass Co., Waterbury, Conn.
Finn & Co., Inc., T. R., Hawthorne, N. J.
Flexonics Corp., Maywood, Ill.
Korfund Co., Long Island City, N. Y.
MB Mfg. Co., Div. of Textron Inc., New Haven, Conn.
Packless Metal Hose, Inc., Mt. Vernon, N. Y.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Seamlex Co., Inc., Long Island City, N. Y.
Techniflex Corp., Port Jervis, N. Y.
United Metal Hose Co., Inc., Long Island City, N. Y.
United States Rubber Co., New York, N. Y.
Universal Metal Hose Co., Chicago, Ill.
Vibration Mountings, Inc., Corona, N. Y.
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### ADHESIVES, BONDING

Armstrong Cork Co., Lancaster, Pa.
Cain Mfg. Inc., Birmingham, Ala.
Carboline Co., St. Louis, Mo.
Columbia Cement Co., Inc., Brooklyn, N. Y.
Cordo Chemical Corp., Norwalk, Conn.
Dow Corning Corp., Midland, Mich.
Goodrich Industrial Products Co., B. F., Akron, O.
Insul-Coustic Corp., Maspeth, N. Y.
Interchemical Corp., Finishes Div., Newark, N. J.
Magic Chemical Co., Brockton, Mass.

Monsanto Chemical Co., St. Louis, Mo. Moore, Inc., Goodloe E., Danville, Ill. Permacel, New Brunswick, N. J. Products Research Co., Los Angeles, Calif. Refractory & Insulation Corp., New York, N. Y. Rubber and Asbestos Corp., Bloomfield, N. J.

### ADHESIVES, INSULATION (FOR DUCT APPLICATIONS)

Armstrong Cork Co., Lancaster, Pa.
Cain Mfg. Inc., Birmingham, Ala.
Capac Mfg. Corp., Capac, Mich.
Columbia Cement Co. Inc., Brooklyn, N. Y.
Duro-Dyne Corp., Farmingdale, N. Y.
Elgen Mfg. Corp., Long Island City, N. Y.
Flintkote Co., New York, N. Y.
Forty-Eight Insulations, Inc., Aurora, Ill.
Goodrich Industrial Products Co., B. F., Akron, O.
Insul-Coustic Corp., Maspeth, N. Y.
Interchemical Corp., Finishes Div., Newark, N. J.
Keasbey & Mattison Co., Ambler, Pa.
Magic Chemical Co., Brockton, Mass.
Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers
Div., St. Paul, Minn.
Miracle Adhesives Corp., Bellmore, L.I., N. Y.
Moore, Inc., Goodloe E., Danville, Ill.
Pittsburgh Coke & Chemical, Summit, Ill.
Presstite Div., American-Marietta Co., St. Louis, Mo.
Refractory & Insulation Corp., New York, N. Y.
Rubber and Asbestos Corp., Bloomfield, N. J.
St. Clair Rubber Co., Detroit, Mich.
Silvercote Products, Inc., Chicago, Ill.
West Chester Chemical Co., West Chester, Pa.
Wilson, Inc., Grant, Chicago, Ill.

### ADSORBERS, ODOR, FOR DUCT SYSTEMS

Aireactor Corp., New York, N. Y.
Barnebey-Cheney Co., Pur Air Div., Columbus, O.
Connor Engineering Corp., Danbury, Conn.
Manning Co., Charles E., Pittsburgh, Pa.
Research Products Corp., Madison, Wis.

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## ALARMS, HEATING PLANT FAILURE

Acme Equipment, Inc., Altoona, Pa. Herbert Fuel Devices, Darien, Conn. Wilson Industries, Inc., Brooklyn, N. Y.

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## ANALYZERS, CO2, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Defender Instrument & Regulator Co., Boody, Ill.
Dwyer Mfg. Co., F. W., Michigan City, Ind.
Ellison Draft Gage Co., Inc., Chicago, Ill.
Engelhard Industries Inc., Instruments & Systems Div.,
East Newark, N. J.
General Scientific Equipment Co., Philadelphia, Pa.
Hays Corp., Michigan City, Ind.
Permutit Co., Div. of Pfaudler Permutit Inc., New York, N. Y.
Thermco Instrument Corp., LaPorte, Ind.
Uehling Instrument Co., Paterson, N. J.
Victory Engineering Corp., Union, N. J.

## ANCHORS, DUCT AND PIPE (FOR DUCTS WHEN POURING CONCRETE SLABS)

Accurate Sheet Metal & Mfg. Works, Chicago, Ill. Edward Associates, Seattle, Wash. Southern Mist Products Co., Evanston, Ill. Williamson Co., The, Cincinnati, O.

## ANCHORS, EXPANSION

Arro Expansion Bolt Co., Marion, O.
Brush Nail Expansion Bolt Co., Greenwich, Conn.
Bulldog Div., Gregory Industries, Inc., Lorain, O.
Chicago Expansion Bolt Co., Chicago, Ill.
Continental Screw Co., New Bedford, Mass.
Holub Industries, Inc., Sycamore, Ill. (Plastic)
Kirel, Inc., Kingston, N. Y.
National Lead Co., New York, N. Y.
Phillips Drill Co., Michigan City, Ind.
Rawlplug Co., Inc., The, New Rochelle, N. Y.
Paine Co., Addison, Ill.
Star Expansion Industries Corp., Mountainville, N. Y.
U.S. Expansion Bolt Co., York, Pa.

#### ANEMOMETERS

Anemostat Corp. of America, New York, N. Y. Bacharach Industrial Instrument Co., Pittsburgh, Pa. Detroit Air Conditioning Service Co., Detroit, Mich. Dwyer Mfg. Co., F. W., Michigan City, Ind.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md. General Scientific Equipment Co., Philadelphia, Pa. Hastings-Raydist, Inc., Hampton, Va. Hill & Co., E. Vernon, Lake Geneva, Wis.
Illinois Testing Laboratories, Inc., Chicago, Ill. (Thermo-electrical)
Taylor Instrument Companies, Rochester, N. Y.
Willson Products, Inc., Reading, Pa.

## ANGLE IRON BENDING MACHINES

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## ANGLES, ANGLE RINGS, BARS, BEAMS, CHANNELS AND TEES

Allegheny Ludlum Steel Corp., Pittsburgh, Pa.
Aluminum Co. of America, Pittsburgh, Pa.
American Brass Co., Waterbury, Conn.
Armco Steel Corp., Middletown, O. (Stainless steel)
Bethlehem Steel Co., Bethlehem, Pa.
Byers Co., A. M., Pittsburgh, Pa. (Angles, bars)
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Angles, bars, channels and tees)
Chicago Metal Mfg. Co., Chicago, Ill.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Day Co., Minneapolis, Minn. (Angle rings)
Harvey Aluminum, Torrance, Calif.
Inland Steel Co., Chicago, Ill.
International Steel Co., Evansville, Ind.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Kirk & Blum Mfg. Co., Cincinnati, O.
Laclede Steel Co., St. Louis, Mo.
National Metal Fabricators, Chicago, Ill.
Penn Metal Co., Inc., New York, N. Y.

Republic Steel Corp., Cleveland, Ohio.
Revere Copper & Brass Inc., New York, N. Y.
Reynolds Metals Co., Richmond, Va.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

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#### **AWNINGS, SHEET METAL**

Air Control Products, Inc., Coopersville, Mich.
Brisk Metal Products Div., Brisk Waterproofing Co., Ridgefield,
N. J.
KoolVent Metal Awning Corp. of America, Pittsburgh, Pa.
Mapes Industries, Inc., Lincoln, Nebr.
Nelson Industries, Pittsburgh, Pa. (Aluminum)
Wagner Awning & Mfg. Co., Cleveland, Ohio.

#### BACK DRAFT DAMPERS

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## BAFFLES, COMBUSTION CHAMBER

Barclay, Inc., Robt., Chicago, Ill.
Boston Machine Works Co., Lynn, Mass.
Harvey, Inc., Sid, Valley Stream, N. Y.
Higgins Metal Products Co., The, Swanton, O.
Home Heating and Cooling Inc., Passaic, N. J.
Insulation & Refractories Co., Webster, N. Y.
Iron-Hide Sales Co., Matawan, N. J.
Oil Bquipment Mfg. Co., New Haven, Conn.
Quigley Co., Inc., New York, N. Y.
Refractory & Insulation Corp., New York, N. Y.
Rex Roto Corp., Walled Lake, Mich.
Robinson Insulation Co., Great Falls, Mont.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Stark & Co., H. W., Ann Arbor, Mich.
Vape-O-Plate Sales Corp., Janesville, Wis.
Zeh Co., Inc., Passaic, N. J.

## BAGS, DUST

Bemis Bro. Bag Co., St. Louis, Mo.

Day Co., Minneapolis, Minn.

Master-Craft Industries, Inc., Garfield, N. J.

Modern Dust Bag Co. Inc., West Haverstraw, N. Y.

Raybestos-Manhattan, Inc., Manheim, Pa.

Wagner Awning & Mfg. Co., Cleveland, Ohio.

## BALANCING EQUIPMENT, FAN AND BLOWER

Bear Mfg. Co., Rock Island, Ill. Cosa Corp., New York, N. Y. Gisholt Machine Co., Madison, Wis.

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#### BAR FOLDERS

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## BARRIERS, BIRD, METAL, PRONGED

Nixalite Co. of America, Rock Island, Ill. (Stainless steel)

## BARRIERS, VAPOR

For Crawl Spaces

American Sisalkraft Corp., Attleboro, Mass. Bird & Son, Inc., East Walpole, Mass. Carey Mfg. Co., Philip, Lockland, Cincinnati, O. Delta Co., The, Chicago, Ill.
Dow Chemical Co., Midland, Mich.
Glas-Kraft, Inc., Lonsdale, R. I.
Lexsuco, Inc., Solon, O.
Ludlow Papers, Inc., Needham Heights, Mass. Meadows, Inc., W. R., Elgin, Ill.
National Mfg. Corp., Tonawanda, N. Y.
Richkraft Co., The, Chicago, Ill.
Wasco Products, Inc., Cambridge, Mass.

#### BARS

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#### BASEBOARD REGISTERS

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## BASES, VIBRATION ISOLATING, PAD TYPE

Celotex Corp., Chicago, Ill.
Felters Co., Inc., Boston, Mass.
Finn & Co., Inc., T. R., Hawthorne, N. J.
Firestone Industries Products Co., Akron, O.
General Tire & Rubber Co., Industrial Products Div., Wabash,
Ind.
Goodrich Co., B. F., Sponge Products, Shelton, Conn.
Goodrich Industrial Products Co., B. F. Akron, O.
Johns-Manville, New York, N. Y.
Johns-Manville, New York, N. Y.
MB Mfg. Co., Div. of Textron Inc., New Haven, Conn.
Mundet Cork Corp., Brooklyn, N. Y.
National Cork Corp., Brooklyn, N. Y.
Quimby & Co., Chester, N. J.
Quimby & Co., Chester, N. J.
Raybestos-Manhattan, Inc., Passaic, N. J.
United Cork Cors., Kearny, N. J.
United States Rubber Co., New York, N. Y.
Vibration Mountings, Inc., Corona, N. Y.
Wagner Awning & Mfg. Co., Cleveland, Ohio.
Western Felt Works, Chicago, Ill.

## BASES, VIBRATION ISOLATING, SPRING TYPE

Barry Controls Inc., Watertown, Mass.
Finn & Co., Inc., T. R., Hawthorne, N. J.
Korfund Co., Long Island City, N. Y.
Lord Mfg. Co., Erie, Pa.
Robinson Technical Products, Inc., Teterboro, N. J.
Vibration Eliminator Co., Long Island City, N. Y.
Vibration Mountings, Inc., Corona, N. Y.

## BATHS, TINNING

Division Lead Co., Summit, Ill. Farrelloy Co., Philadelphia, Pa.

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#### REAMS

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#### BEARINGS, PILLOW BLOCK

Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio. Anti-Friction Bearings Co., Los Angeles, Calif. Browning Mfg. Co., Inc., Maysville, Ky. Chain Belt Co., Milwaukee, Wis. Chicago Die Casting Mfg. Co., Chicago, Ill. Congress Drives Div., Tann Corp., Detroit, Mich. Dodge Mfg. Corp., Mishawaka, Ind.
Fafair Bearing Co., The, New Britain, Conn. Freed Products Co., Moline, Ill. Goldens' Foundry & Machine Co., Columbus, Ga. Hoover Ball & Bearing Co., Ann Arbor, Mich. Jones Machinery Div., Hewitt-Robins Inc., Chicago, Ill. Lau Blower Co., Dayton, Ohio. Link-Belt Co., Chicago, Ill. Norma-Hoffmann Bearing Corp., Stamford, Conn. Plymouth Industries, Inc., Plymouth, Ind. Randall Graphite Bearings, Inc., Chicago, Ill. Royersford Foundry & Machine Co., Royersford, Pa. Seco-Lite Mfg. Co., St. Louis, Mo. Shafer Bearing Div., Chain Belt Co., Downers Grove, Ill. SKF Industries, Inc., Philadelphia, Pa. Stephens-Adamson Mfg. Co., Aurora, Ill. Triangle Mfg. Co., Oshkosh, Wis. Vernco Corp., Columbus, Ind. Wood's Sons Co., T. B., Chambersburg, Pa.

#### BELTS, V

American Pulley Co., Philadelphia, Pa.
Browning Mfg. Co., Inc., Maysville, Ky.
Congress Drives Div. Tann Corp., Detroit, Mich.
Dayton Industrial Products Co., Melrose Park, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Durkee-Atwood Co., Minneapolis, Minn.
Extremultus, Inc., New York, N. Y.
Firestone Industrial Products Co., Akron, O.
Gates Rubber Co., Denver, Colo.
Goodrich Industrial Products Co., B. F., Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Jones Machinery Div., Hewitt-Robins Inc., Chicago, Ill.
Lovejoy Flexible Coupling Co., Chicago, Ill.
Manheim Mfg. & Belting Co., Manheim, Pa.
Maurey Mfg. Corp., Chicago, Ill.
Raybestos-Manhattan, Inc., Passaic, N. J.
Replacement Parts, Inc., Euclid, O.
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, Ohio.
Thermoid Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Wood's Sons Co., T. B., Chambersburg, Pa.
Worthington Corp., Harrison, N. J.
Zatko Metal Products Co., Euclid, O.

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#### RENCH FURNACES

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### BENDERS, (ANGLE, ETC.)

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#### RINS AND SHELVING

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### BLADES, PROPELLER FAN

Ackermann Mfg. Co., Wheeling, W. Va.
Aerovent Fan Co., Piqua, Ohio.
Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio.
Air Manater Corp., Chicago, Ill.
Alloy Propeller Co., Zelienople, Pa.
American Coolair Corp., Jacksonville, Fla.
Beetle Plastics Corp., Carl N., Fall River, Mass. (Plastic)
Berns Air King Corp., Chicago, Ill.
Bertram Co., Harvey P., Cincinnati, O.
Broan Mfg. Co., Inc., Hartford, Wis.
Bronson Fan Mfg. Corp., Los Angeles, Calif.
Brookside Corp., McCordsville, Ind.
C & H Air Conditioning Fan Co., Inc., Atlanta, Ga.
Chelsea Fan & Blower Co., Inc., Irvington, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Dallas Engineering Co., Inc., Dallas, Texas.
Dana Fan & Blower Corp., Cincinnati, Ohio.
Dayton Industrial Products Co., Melrose Park, Ill.
Fleigid, Inc., Brooklyn, N. Y.
International Engineering, Inc., Dayton, Ohio.
Kloppenborg Foundry & Fan Co., Davenport, Ia.
Koppers Co., Inc., Metal Products Div., Baltimore, Md.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
Martin Fan & Blower Co., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Meier Electric, Indianapolis, Ind.
Morrill Motors, Inc., Fort Wayne, Ind.
Myers Electric Co., Pittsburgh, Pa.
Peerless Electric Div., The H. K. Porter Co., Inc., Warren, Ohio.
Revcor Inc., Carpentersville, Ill.
Rich Fan Mfg. Co., Phil, Houston, Tex.
Russell Coil Co., Santa Fe Springs, Calif.
South Bend Air Products, Inc., South Bend, Ind.
Skinner Heating & Ventilating Co., Inc., St. Louis, Mo.
Thermal Industries, Indio, Calif.
Torrington Mfg. Co., Torrington, Conn.
Vernco Corp., Columbus, Ind.
West Wind Corp., Seattle, Wash.
Wind-Way Fan & Ventilator Co., New Orleans, La.

## BLADES, SAW, ELECTRIC, PORTABLE

Albertson & Co., Inc., Sioux City, Iowa (Circular)
Cummins Portable Tools, Div. of John Oster Mfg. Co., Milwaukee, Wis.
Independent Blade Co., Div. Westlund Industries, East Haven, Conn.
Malco Products, Minneapolis, Minn.
Price & Rutzebeck, Hayward, Calif.
Producers & Distributors, Inc., Allentown, Pa.
RCS Tool Corp., Bloomington, Ill.
Simonds Saw & Steel Co., Fitchburg, Mass. (Circular)
Skil Corp., Chicago, Ill.
Thompson & Sons Co., Henry G., New Haven, Conn. (Hack)

### BLADES, SAW, HACK AND BAND

American Saw & Mfg. Co., Inc., Springfield, Mass.
Atkins Saw Div., Borg-Warner Corp., Indianapolis, Ind.
Capewell Mfg. Co., Hartford, Conn. (Hack)
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
(Hack and band)
Disston Div., H. K. Porter Co., Inc., Philadelphia, Pa.
Dreier Bros., Inc., Chicago, Ill.
Howes-Woods Co., Cambridge, Mass.
Independent Blade Co., Div. Westlund Industries, East Haven,
Conn.

Malco Products, Minneapolis, Minn.
Mephisto Tool Co., Inc., Hudson, N. Y.
Millers Falls Co., Greenfield, Mass.
Price & Rutzebeck, Hayward, Calif.
Saw.Mor Tool & Blade Co., Chicago, Ill.
Simonds Saw & Steel Co., Fitchburg, Mass.
Spartan Saw Works, Inc., Springfield, Mass.
Thor Power Tool Co., Aurora, Ill.
Tyler Mig. Co., Inc., Inglewood, Calif.
Wells Mig. Corp., Three Rivers, Mich. (Band)

### BLAST COILS, ELECTRIC

See Surface, Fin, Electric Heating Element

#### BLAST GATES

See Gates, Blast

#### **BLOWER CONTROLS**

See Controls, Blower, Speed Changing

## **BLOWER-FILTER UNITS, WARM AIR FURNACE**

filter and fan only

Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio Airfan Engineering Co., Los Angeles, Calif.
American-Standard Air Conditioning Div., New York, N. Y. Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Bard Mfg. Co., Bryan, O.
Brundage Co., Kalamazoo, Mich.
Crane Co., Chicago, Ill.
Crown Home Equipment Co., Philadelphia, Pa.
Fraser & Johnston Co., San Francisco, Calif.
Hall-Neal Furnace Co., Indianapolis. Ind.
Heating Assurance, Inc., Spokane, Wash.
Henry Furnace Co., Medina, Ohio.
International Heater Co., Utica, N. Y.
Lau Blower Co., Dayton, Ohio.
Lennox Industries Inc., Marshalltown, Iowa.
Meyer Furnace Co., Feoria, Ill.
Norman Products Co., Columbus, O.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Peerless Electric Div., The H. K. Porter Co., Inc., Warren, Ohio.
Premier Furnace Co., Davagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Tuck-Aire Furnace Co., San Francisco, Calif.
Viking Air Products Div., National-U. S. Radiator Corp., Cleve land, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Western Blower Co., Scattle, Wash.
Zick Sheet Metal Works, Dearborn, Mich.

#### BLOWER HOUSINGS

See Housings, Blower and Fan

## BLOWER-WASHER UNITS, WARM AIR FURNACE

Air Stream Filter Corp., St. Louis, Mo.

### **BLOWER WHEELS**

See Wheels, Blower

## BLOWERS, DUCT, CENTRIFUGAL

(With Filter Frames)

American Air Filter Co., Inc., Louisville, Ky.
Brundage Co., Kalamazoo, Mich.
Corite Products Inc., Chicago, Ill. (Plastic and plastic coated)
Ilg Electric Ventilating Co., Chicago, Ill.
Muncie Gear Works, Cordele, Ga.
New York Blower Co., Chicago, Ill.

Phelps Mfg. Co., Little Rock, Ark. Viking Air Products, Div. National-U.S. Radiator Corp., Cleveland, O.

## **BLOWERS, EXHAUSTERS (METAL AND PLASTIC)**

Airfan Engineering Co., Los Angeles, Calif. Aladdin Heating Corp., San Leandro, Calif. American Agile Corp., Bedford, O. (Plastic) Ammerman Co., Inc., Stillwater, Minn. Babbin, Inc., New York, N. Y. Ammerman Co., Inc., Stillwater, Minn.
Babbin, Inc., New York, N. Y.
Barry Blower Co., Minneapolis, Minn.
Bayley Blower Co., Milwaukee, Wis.
Brookside Corp., McCordsville, Ind.
Brundage Co., Kalamazoo, Mich.
Buffalo Forge Co., N. Y.
Century Fan & Ventilator Co., Inc., Stamford, Conn.
Champion Blower & Forge Co., Lancaster, Pa.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill. (Metal and plastic)
Clarage Fan Co., Kalamazoo, Mich.
Commercialaire Corp. of America, Brooklyn, N. Y. (Metal)
Corite Products Inc., Chicago, Ill. (Plastic and plastic coated)
Day Co., Minneapolis, Minn.
Du Verre, Inc., Buffalo, N. Y. (Plastic)
Electrovent Fan & Mfg. Co., Chicago, Ill.
Frigid, Inc., Brooklyn, N. Y.
Garden City Fan Co., Niles, Mich.
General Blower Co., Subsidiary of Ilg Electric Ventilating Co.,
Morton Grove, Ill. Morton Grove, Ill. Haveg Corp., Wilmington, Del. (Plastic)
Heil Process Equipment Corp., Cleveland, O.
Ilg Electric Ventilating Co., Chicago, Ill.
Industrial Plastic Fabricators, Inc., Norwood, Mass.
Kice Metal Products Co., Wichita, Kans. Martin Fan & Blower Co., Chicago, Ill.
Meyer & Sons, Inc., W. W., Skokie, Ill.
Milo Mfg. Co., Elizabeth, N. J. (Plastic)
Nelson Products, Herman, American Air Filter Co., Inc., Louis Nelson Products, Fierman, ville, Ky.

New York Blower Co., Chicago, Ill.

Northern Blower Co., Cleveland, Ohio.

Peerless Electric Div., The H. K. Porter Co., Inc., Warren, O.

Phelps Mfg. Co., Little Rock, Ark.

Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.

Quickdraft Co., Canton, O.

Redmond Co., Inc., Subsidiary of Controls Co. of America,

Mich. Rees Blow Pipe Mfg. Co., Berkeley, Calif. S & C Mfg. Co., Cincinnati, O. Seelye Craftsmen, Minneapolis, Minn. (Plastic) Skinner Heating & Ventilating Co. Div. Young Sales Corp., St. Louis, Mo. Spencer Turbine Co., Hartford, Conn. United States Air Conditioning Corp., Delaware, O. Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif. Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston, Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.

## BLOWERS, FORCED DRAFT, ASH PIT

Aladdin Heating Corp., San Leandro, Calif.
American-Standard Industrial Div., Detroit, Mich.
Babbin, Inc., New York, N. Y.
Bayley Blower Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Coppus Engineering Corp., Worcester, Mass.
Garden City Fan Co., Niles, Mich.
General Blower Co., Subsidiary of Ilg Electric Ventilating Co., Morton Grove, Ill.
General Blower Co., Inc., Philadelphia, Pa.
International Engineering, Inc., Dayton, Ohio.
Joy Mfg. Co., Pittsburgh, Pa.
Kol-Master Corp., Oregon, Ill.
Lehigh Fan & Blower Div., Fuller Co., Catasauqua, Pa.
Martin Fan & Blower Co., Chicago, Ill.
Robinson Ventilating Co., Zelienople, Pa.
Small Motors, Inc., Chicago, Ill.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J

## BLOWERS, FURNACE AND AIR CONDITIONING UNIT, CENTRIFUGAL

Air Controls Inc., Div. Cleveland Heater Co., Clevel Airfan Engineering Co., Los Angeles, Calif. Aladdin Heating Corp., San Leandro, Calif. Alloy Propeller Co., Zelienople, Pa. American Air Filter Co., Inc., Louisville, Ky. American Foundry & Furnace Co., Bloomington, Ill. American Furnace Co., St. Louis, Mo. American Standard Industrial Div., Detroit, Mich. Auburn Burner Co., Edgerton, O. Barry Blower Co., Mimeapolis, Minn. Brookside Corp., McCordsville, Ind. Brundage Co., Kalamazoo, Mich. Buffalo Forge Co., Buffalo, N. Y. Campbell Heating Co., Des Moines, Iowa. Century Fan & Ventilator Co., Stamford, Conn. Champion Blower & Forge Co., Lancaster, Pa. Air Controls Inc., Div. Cleveland Heater Co., Cleveland, Ohio. Champion Blower & Forge Co., Lancaster, Pa. Chicago Blower Corp., Franklin Park, Ill. Clarage Fan Co., Kalamazoo, Mich. Dowagiac Steel Furnace Co., Dowagiac, Mich. Freed Products Co., Moline, Ill. Frigid, Inc., Brooklyn, N. Y. Furblo Co., Hermansville, Mich. Garden City Fan Co., Niles, Mich. General Blower Co., Subsidiary of Ilg Electric Ventilating Co., Morton Grove, Ill. Hall-Neal Furnace Co., Indianapolis, Ind. Ilg Electric Ventilating Co., Chicago, Ill. Lau Blower Co., Dayton, Ohio. Lau Blower Co., Dayton, Onio.

Lennox Industries Inc., Marshalltown, Iowa.

Magic Aire Div., United Electric Co., Wichita Falls, Tex.

Majestic Co., Inc., Huntington, Ind.

Martin Fan & Blower Co., Chicago, Ill. Mauer Engineering, Evanston, Ill. Meyer Furnace Co., Peoria, Ill. Morrison Products, Inc., Cleveland, Ohio. Morntain Products, Inc., Cleveland, Ohio.

Mountain States Equipment Co., Denver, Colo.

Peerless Electric Div., The H. K. Porter Co., Inc., Warren, Ohio.

Premier Furnace Co., Dowagiac, Mich.

Skinner Heating & Ventilating Co. Div. Young Sales Corp., St. Skinner Heating & Ventilating Co. Div. Young Sales Corp., St. Louis, Mo.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Torrington Mfg. Co., Torrington, Conn.
Tuck-Aire Furnace Co., San Francisco, Calif.
United States Air Conditioning Corp., Delaware, O.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles Calif. les, Calif. viking Air Products Div., National-U. S. Radiator Corp., Cleveland, O. Waterbury Co., Minneapolis, Minn. Western Blower Co., Seattle, Wash. Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

## **BLOWERS, INDUCED DRAFT, SMOKE PIPE**

Zick Sheet Metal Works, Dearborn, Mich.

Aladdin Heating Corp., San Leandro, Calif.
American Foundry & Furnace Co., Bloomington, Ill.
American-Standard Industrial Div., Detroit, Mich.
Ammerman Co., Inc., Stillwater, Minn.
Autogas Co., Bellwood, Ill.
Babbin, Inc., New York, N. Y.
Bayley Blower Co., Milwaukee, Wis.
Century Fan & Ventilator Co., Inc., Stamford, Conn.
Chicago Blower Corp., Franklin Park. Ill.
DeBothezat Fans Div., American Machine and Metals, Inc., Moline, Ill.
Garden City Fan Co., Niles, Mich.
General Blower Co., Subsidiary of Ilg Electric Ventilating Co., Morton Grove, Ill.
General Blower Co., Inc., Philadelphia, Pa.
Kisco Boiler & Engineering Co., St. Louis, Mo.
Lehigh Fan & Blower Div., Fuller Co., Catasauqua, Pa.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Martin Fan & Blower Co., Chicago, Ill.
OverHead Heaters, Inc., Detroit, Mich.
Preferred Utilities Mfg. Corp., New York, N. Y.
Quickdraft Co., Canton, O.
Small Motors, Inc., Chicago, Ill.
Therm Oil Burner Co., Seattle, Wash.
Tjernlund Mfg. Co., St. Paul, Minn.
Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston, Mass.
Whitty Co., Inc., Boston, Mass.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.

## BLOWERS, MATERIAL HANDLING

Airfan Engineering Co., Los Angeles, Calif.
American Air Filter Co., Inc., Louisville, Ky.
American Blower Corp., Detroit, Mich.
Barty Blower Co., Minneapolis, Minn.
Bayley Blower Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Carolina Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Day Co., Minneapolis, Minn.
Garden City Fan Co., Niles, Mich.
General Blower Corp., Subsidiary of Ilg Electric Ventilating Co.,
Morton Grove, Ill.
Ilg Electric Ventilating Co., Chicago, Ill.
Kice Metal Products Co., Wichita, Kans.
Martin Fan & Blower Co., Chicago, Ill.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.
New York Blower Co., Chicago, Ill.
Phelps Mfg. Co., Little Rock, Ark.
Quickdraft Co., Canton, O.
Robinson Ventilating Co., Zelienople, Pa.
Spencer Turbine Co., Hartford, Conn.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

## **BLOWING MACHINES, INSULATION**

Babbin, Inc., New York, N. Y.
Hagan Mfg. Co., Delphos, O.
Insulating Equipment Co., Chicago, Ill.
Molloy Machine Corp., Chicago, Ill.
Rotary Compressor Blower Co., Grove City, Pa.
Universal Insulating Machine Co., Winter Haven, Fla.

#### **BLOW PIPE ACCESSORIES**

Elbows, Flanges, Hangers, Hoods and Sweeps, Joints, Rings, Tubing

Barcafer Mfg. Co., Salina, Kans.
Carolina Blower Co., Inc., Greensboro, N. C.
Chicago Metal Mfg. Co., Chicago, Ill.
Day Co., Minneapolis, Minn.
DeVilbiss Metal Fabricators Co., Detroit, Mich.
Dustender Co., Ann Arbor, Mich. (Mist separator)
Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
Kice Metal Products Co., Wichita, Kans.
Kirk & Blum Mfg. Co., Cincinnati, Ohio. (Adjustable buffing hoods).
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Lumm., A. H., Toledo, O.
Lyman Co., H. B., Southampton, Mass.
National Metal Fabricators, Chicago, Ill. (Flanges)
Northern Blower Co., Cleveland, Ohio.
Penn Supply & Metal Corp., Philadelphia, Pa.
Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
Skinner Heating & Ventilating Co. Div. Young Sales Corp., St.
Louis, Mo.
Spincraft, Inc., Milwaukee, Wis.
Torit Mfg. Co., St. Paul, Minn. (Filter bags and door fasteners)
United Sheet Metal Co., Inc., Columbus, O.
Wer-Coy Fabrication Co., Detroit, Mich. (Elbows)
Western Blower Co., Seattle, Wash.
Winkler & Sons, Inc., A. E., Milwaukee, Wis.
Young & Bertke Co., Cincinnati, Ohio.

#### BLOW PIPE COLLECTORS

See Collectors, Dust

## BLOW PIPE EQUIPMENT

See Gates, Blast; Collectors, Dust

## BOARDS AND PANELS, CONTROL (FOR ELECTRIC HEATING SYSTEMS)

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Wilson Electric Furnaces, Rossville, Ga.

## BOARDS AND PANELS, CONTROL (FOR WINTER, SUMMER AND YEAR 'ROUND AIR CONDITIONING SYSTEMS)

Carrier Corp., Syracuse, N. Y.
Continental Electric Equipment Co., Cincinnati, O.
General Controls Co., Glendale, Calif.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
White-Rodgers Co., St. Louis, Mo.

#### **BODIES AND ACCESSORIES, TRUCK**

Alf-Herman Corp., St. Louis, Mo.
Allegheny Body Co., Inc., Philadelphia, Pa. (Utility body)
Anthony Co., Streator, Ill. (Elevating tail gate)
Boyertown Auto Body Works, Inc., Boyertown, Pa. (City van).
Chevrolet Motor Div., General Motors Corp., Detroit, Mich.
Dodge Div., Chrysler Corp., Detroit, Mich.
International Harvester Co., Motor Truck Div., Chicago, Ill.
Karyall Body, Inc., Cleveland, O.
McCabe Powers Auto Body Co., St. Louis, Mo.
Mid West Body & Mfg. Co., Paris, Ill. (Manually operated elevating tail gate)
Morrison Steel Products, Inc., Buffalo, N. Y.
Morysville Body Works, Inc., Boyertown, Pa. (Furnace cleaning)
Reading Body Works, Inc., Reading, Pa. (Service bodies)
Stahl Metal Products, Cleveland, O.
Utility Body Co., Oakland, Calif. (Service)
Watson Co., H. S., Emeryville, Calif. (Tailgate)
Wilhelmson Sheet Metal Works, South Gate, Calif. (Tool boxes)
York-Hoover Corp., Body Div., York, Pa.

#### **BOLTS, EXPANSION**

Arro Expansion Bolt Co., Marion, O.
Brush Nail Expansion Bolt Co., Greenwich, Conn.
Bulldog Div., Gregory Industries, Inc., Lorain, O.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Holub Industries, Inc., Sycamore, Ill.
Kirel, Inc., Kingston, N. Y.
National Lead Co., New York, N. Y.
Paine Co., Addison, Ill.
Phillips Drill Co., Michigan City, Ind.
Rawlplug Co., Inc., New Rochelle, N. Y.
Republic Steel Corp., Cleveland, O.
Star Expansion Bolt Co., New York, N. Y.
U. S. Expansion Bolt Co., York, Pa.

## **BOLTS, TOGGLE**

Arro Expansion Bolt Co., Marion, O.
Bulldog Div., Gregory Industries, Inc., Lorain, O.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Holub Industries, Inc., Sycamore, Ill.
Paine Co., Addison, Ill.
Rawlplug Co., Inc., New Rochelle, N. Y.
Star Expansion Bolt Co., New York, N. Y.
U. S. Expansion Bolt Co., York, Pa.

#### **BOMBS, CANDLES AND GUNS, SMOKE**

For Testing Air Movement

Air Control Products, Inc., Coopersville, Mich.
Design Engineers, Rockford, Ill.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Kilgore, Inc., International Flare-Signal Div., Westerville, Ohio.
Schiller Mfg. Co., Detroit, Mich.
Unexcelled Chemical Corp., New York, N. Y.

## BOOSTER FANS

See Fans, Booster

## BOOSTERS, DRAFT, MECHANICAL

For Increasing Chimney Capacity

Ammerman Co., Inc., Stillwater, Minn.
Breese Burners, Inc., Sales and Appliance Engineering Div.,
Milwaukee, Wis.
Brumme Mfg. Co., Topeka, Kans.
Little Burner Co., Inc., H. C., San Rafael, Calif.
McLarty Sytems, Battle Creek, Mich.
Quickdraft Co., Canton, O.
Reznor Mfg. Co., Mercer, Pa.
Tjernlund Mfg. Co., St. Paul, Minn.
Walker Mfg. and Sales Corp., St. Joseph, Mo.

#### **BOOSTER TRANSFORMERS**

See Transformers, Boost and Buck

#### **BOOTS FOR REGISTERS**

See Duct Fittings

#### BRAKES

See Machines, Brakes

#### BRUSHES, ACID

Ace Wire Brush Co., Brooklyn, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill. Division Lead Co., Summit, Ill. Farrelloy Co., Philadelphia, Pa. Johnson Mfg. Co., Inc., Mount Vernon, Ia. Lukens Metal Co., Thos. F., Philadelphia, Pa. Milwaukee Brush Mfg. Co., Milwaukee, Wis. Osborn Mfg. Co., Cleveland, Ohio. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. Schaefer Brush Mfg. Co., Milwaukee, Wis.

#### BRUSHES FOR COPPER FITTING CLEANING

Ace Wire Brush Co., Brooklyn, N. Y.
Mueller Brass Co., Port Huron, Mich.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason Worcester Brush
Co., Worcester, Mass.

#### BRUSHES, FURNACE, FLUE

Ace Wire Brush Co., Brooklyn, N. Y.
Harvey, Inc., Sid, Valley Stream, N. Y.
Milwaukee Brush Mfg. Co., Milwaukee, Wis.
Osborn Mfg. Co., Cleveland, Ohio.
Pilley Brush Co., Fort Madison, Ia.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason Worcester Brush
Co., Worcester, Mass.

## BUFFERS, GRINDERS, POLISHERS, AND SANDERS, ELECTRIC

Albertson & Co., Inc., Sioux City, Iowa.
American Lincoln Corp., Toledo, O.
Baldor Electric Co., St. Louis, Mo.
Black & Decker Mfg. Co., Towson, Md.
Brown-Brockmeyer Co., Inc., Dayton, Ohio.
Chicago Pneumatic Tool Co., New York, N. Y.
Cummins Portable Tools, Div. of John Oster Mfg. Co., Milwaukee, Wis.
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
Detroit Surfacing Machine Co., Detroit, Mich.
H & H Research Co., Detroit, Mich.
Hammond Machinery Builders, Inc., Kalamazoo, Mich.
Haskins Co., R. G., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Krieg, Inc., Victor J., New York, N. Y.
L'Hommedieu & Sons Co., Chas. F., Chicago, Ill. (Polishers)
Millers Falls Co., Greenfield, Mass.

Milwaukee Electric Tool Corp., Milwaukee, Wis.
Portable Electric Tools, Inc., Chicago, Ill.
Porter-Cable Machine Co., Syracuse, N. Y.
Remington Arms Co., Inc., Bridgeport, Conn.
Reynolds Electric Co., River Grove, Ill.
Rotor Tool Co., Cleveland, Ohio.
Skil Corporation, Chicago, Ill.
Small Motors, Inc., Chicago, Ill.
Smap-on Tools Corp., Kenosha, Wis.
Speedway Mfg. Co., Div. of Thor Power Tool Co., LaGrange Park, Ill.
Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Stow Mfg. Co., Binghamton, N. Y.
Thor Power Tool Co., Aurora, Ill.
U. S. Electrical Motors, Inc., Los Angeles, Calif.
Valley Electric Corp., St. Louis, Mo.
Wyzenbeek & Staff, Inc., Chicago, Ill.

## BUFFERS, GRINDERS, POLISHERS AND SANDERS, PNEUMATIC

Chicago Pneumatic Tool Co., New York, N. Y. Gardner-Denver Co., Quincy, Ill. Rotor Tool Co., Cleveland, Ohio. Skil Corporation, Chicago, Ill. Thor Power Tool Co., Aurora, Ill.

## BURNER PARTS, GAS

Albertson & Co., Inc., Sioux City, Ia.
Auburn Spark Plug Co., Inc., Auburn, N. Y. (Igniters)
Fieser Co., F. J., New York, N. Y. (Inspirators, drilled pipe
burners, ribbon burners)
Harvey, Inc., Sid., Valley Stream, N. Y.
Nu-Way Corp., The, Rock Island, Ill. (Venturi housings)
Robinson Tube Fabricating Co., Conway, Ark. (Venturi tubes)
Watervliet Tool Co., Inc., Albany, N. Y.

### BURNER PARTS, OIL

Auburn Spark Plug Co., Inc., Auburn, N. Y. (Electrodes) Bell Engineering & Supply Co., Three Rivers, Mich. (Flexible oil lines) Boston Machine Works Co., Lynn, Mass. (Combustion heads, air tubes) Burn-Rite Products Co., Yonkers, N. Y.
Carlin Co., The, Wethersfield, Conn.
Chicago Screw Co., Div. Standard Screw Co., Bellwood, Ill. (Nozzle adapter) Crown Engineering Corp., Keyport, N. J. (Electrodes, ignition terminals) Delavan Mfg. Co., West Des Moines, Ia. (Nozzle adapters, nozzle strainers, filters)

Dielectric Products Co., Inc., Jersey City, N. J. (Electrodes)

Bddington Metal Specialty Co., Eddington, Pa. (Combustion heads, nozzle filters, air cones and stabilizers) Electrical Components Co., Div. of National Ceramic Co., Trenton, N. J. (Electrodes) Gas & Oil Industry Laboratories, Inc., Irvington, N. J. (Valves) Guardian Products Corp., Michigan City, Ind. Harvey, Inc., Sid, Valley Stream, N. Y. (Electrodes, fuel unit bellows) Hays Mfg. Co., Erie, Pa. (Valve fittings) HomEase Products Div. of Bogue Electric Mfg. Co., Paterson. N. J. (Electrodes) Hydrovalve Co., Brooklyn, N. Y. (Electrodes)
Lord Mfg. Co., Erie, Pa. (Flexible shaft couplings)
Lovejoy Flexible Coupling Co., Chicago, Ill. (Flexible shaft Modern Die & Machine Co., Boston, Mass. (Combustion head) Monarch Mfg. Works, Inc., Philadelphia, Pa. (Combustion heads, nozzles, strainers) heads, nozzles, strainers)
Morse-Smith-Morse Co., The, Watertown, Mass. (Valves)
Mueller Co., Decatur, Ill. (Valves)
Mutual Mfg. Co., Flushing, N. Y. (Check valves)
Nu-Way Corp., The, Rock Island, Ill. (Nozzle and electrode assembly) Power-Flame, Inc., Grandview, Mo. Premier Furnace Co., Dowagiac, Mich. Quiet Automatic Burner Corp., Newark, N. J. (Combustion head) Quiet-Heet Div., Burner Mfg. Corp. of America, New York, N. Y. Service and Supply Co., Appleton, Wis. (Transformer brackSteinen Mfg. Co., Wm., Newark, N. J. (Electrodes, nozzle filters)
Sundstrand Engineering Co., Rock Island, Ill. (Nozzle and electrode assembly)
Webster Electric Co., Racine, Wis. (Nozzle valve)

## BURNERS, GAS, RESIDENTIAL

Adams Mfg. Co., Cleveland, Ohio.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, Ohio. Aston Products, Inc., Warren, Mich.
Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Autogas Co., Bellwood, Ill. Banner Burner Co., Youngstown, Ohio. Barber Mfg. Co., Cleveland, O. Bard Mfg. Co., Bryan, Ohio. Blue-Ray Gas Burner Co., Detroit, Mich. Bonair Div., Peerless Products Co., Philadelphia, Pa. Bonair Div., Peeriess Products Co., Philadelphia, Pa.
Bowlby Air Devices Co., Wichita, Kans.
Bryant Industrial Products Corp., Cleveland, O.
Bryant Mfg. Co., Indianapolis, Ind.
Burdett Mfg. Co., Chicago, Ill.
Burn O Matic Gas Burner Co., Minneapolis, Minn.
Century Engineering Corp., Cedar Rapids, Iowa.
Columbia Burner Co., Toledo, Ohio.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendota. Ill. Mendota, III. Consolidated Industries, Inc., Lafayette, Ind. Cox Mfg. Co., Ridgeville, Ind. Crane Co., Chicago, Ill. Custom Industries Mfg., Inc., Warren, O.
Dalzen Tool & Mfg. Co., Detroit, Mich.
Delco Appliance Div. General Motors Corp., Rochester, N. Y. Denver Fire Clay Co., Denver, Colo. Donley Bros. Co., Cleveland, O. Dornback Furnace & Foundry Co., Eastlake, O Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Downing Steel Products Co., Kettering, O.
Eclipse Fuel Engineering Co., Rockford, Ill.
F & E Mfg. Co., Fremont, Calif.
Falz Mfg. Co., St. Paul, Minn.
Floral City Heater Div., United States Air Conditioning Corp.,
Monroe, Mich.
Gical Mfg. Inc. Elect. Obio Geisel Mfg. Inc., Elyria, Ohio. Gold Top Heating, Inc., Butte, Mont. Green Colonial Inc., Des Moines, Ia. H-P Products, Louisville, Ohio Handley-Brown Co., Jackson, Mich. Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Hayward Gas Burner Div., Algonac Tool & Die Co., Algonac, Heil-Quaker Corp., Nashville, Tenn. Henry Furnace Corp., Nashville, Tenn.
Henry Furnace Co., Medina, Ohio.
Hinding & Co., St. Paul, Minn.
Hutchinson Burner & Mfg. Co., Hutchinson, Kans.
Illinois Iron & Bolt Co., Carpentersville, Ill.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Een-Loy Gas Burner Co., Milwaukee, Wis. Ken-Joy Gas Burner Co., Milwaukee, Wis.
Killam Gas Burner Co., Denver, Colo.
Laharco Industries, Inc., Minneapolis, Minn.
Lennox Industries Inc., Marshalltown, Iowa. Liberty Combustion Corp., Syracuse, N. Y. Lundt, Inc., Ernest C., Little Falls, N. J. Magic Servant Products Co., Detroit, Mich.
Majestic Co., Inc., Huntington, Ind.
Martin Co., Inc., J. O., San Francisco, Calif.
Martin Stamping & Stove Co., Huntsville, Ala.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Iowa.
Mettler Co., Inc., The, Div. of Eclipse Fuel Engineering Co.,
Rockford, Ill.
Metzger Machine & Engineering Co., The Machine & Engineering Co., Magic Servant Products Co., Detroit, Mich. Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee, Meyer Furnace Co., Peoria, III. Mid-Continent Metal Products Co., Chicago, Ill. Modern Controls Corp., Centerline, Mich.

Morrison Steel Products, Inc., Buffalo, N. Y.
Mueller Climatrol, Milwaukee, Wis.
Muncie Burner Mfg. Co., Romulus, Mich.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Motors Corp., Dunkirk, N. Y.
Norman Products Co., Columbus, Ohio.
Northwest Foundry & Furnace Co., Portland, Ore.
Nu-Way Corp., The, Rock Island, Ill.
Olsen Mfg. Co., The C. A., Elyria, Ohio
Paramount Supply Co., Lincoln, Nebr.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, Ohio.
Power-Flame, Inc., Grandview, Mo. Morrison Steel Products, Inc., Buffalo, N. Y. Perfection Industries, Div. of Hupp Corp., Cleveland, Ohlo. Power-Flame, Inc., Grandview, Mo. Premier Furnace Co., Dowagiac, Mich. Queen Products Div., King-Seeley Corp., Albert Lea, Minn. Radiant Burners, Inc., Lombard, Ill. Ransome Torch & Burner Co., Emeryville, Calif. Rapid Heat Corp., Detroit, Mich. Rayfield-Staffco Burner Co., Chicago, Ill. Ray Oil Burner Co., San Francisco, Calif. Reif-Rexoil, Inc., Buffalo, N. Y. Revere Products, Inc., Detroit, Mich. Rheem Mfg. Co., Chicago, Ill. Rheem Mig. Co., Chicago, Ill.
Roberts-Gordon Appliance Corp., Buffalo, N. Y.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Schwab Safe Co., Lafayette, Ind.
Sheet Metal Mfg. Co., Youngstown, O.
Silent Automatic Products, Cleveland, O. Silent Automatic Products, Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, III.
Sonner Burner Co., Winfield, Kans.
Standard Fuel Engineering Co., Detroit, Mich.
Steel City Furnace Corp., Springdale, Pa.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind. Lebanon, Ind.
Stratton & Terstegge Co., Louisville, Ky.
Sunny Sue Burner Co., Syracuse, N. Y.
Sure Comfort Furnace Co., Forest Park, Ill.
Synchronous Flame, Inc., Walworth, Wis.
Syncromatic Corp., Watertown, Wis.
Temco, Inc., Nashville, Tenn. Temco, Inc., Nashville, Tenn.
Thermex Engineering Co., Chicago, III.
Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio
Triad Products Corp., Chicago, III.
Vacuum Gas Burner Corp., Olean, N. Y.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Williams Oil-O-Matic Heating Co., Div. of National Union
Electric Corp., Columbus, O. Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, Ohio.

## BURNERS, GAS-OIL COMBINATION, RESIDENTIAL

Wisconsin Burners Inc., Madison, Wis. Wood Co., John, Heater & Tank Div., Conshohocken, Pa. York-Shipley, Inc., York, Penn.

Johnson Co., S. T., Philadelphia, Pa. & Oakland, Calif. Lundt, Inc., Ernest C., Little Falls, N. J. Power-Flame, Inc., Grandview, Mo. Quiet Automatic Burner Corp., Newark, N. J. Rayfield-Staffco Burner Co., Chicago, Ill. Roberts-Gordon Appliance Corp., Buffalo, N. Y. Synchronous Flame, Inc., Walworth, Wis. Wisconsin Burners Inc., Madison, Wis.

## BURNERS, OIL, GRAVITY

(No. 2 OII)

Benner-Nawman, Inc., Oakland, Calif.
Boston Machine Works Co., Lynn, Mass.
Breese Burners, Inc., Sales and Appliance Engineering Div.,
Milwaukee, Wis.
Gilmore Burners, Inc., Cleveland, O.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Kresno-Stamm Mfg. Co., Palisades Park, N. J.
Little Burner Co., Inc., H. C., San Rafael, Calif.

Metro Metal Mfg. Co., Holt, Mich. Meyer Furnace Co., Peoria, Ill. National-U.S. Radiator Corp., Johnstown, Pa. Rayfield-Staffco Burner Co., Chicago, Ill. United Air Heaters, Inc., Seattle, Wash.

Acme Heat & Power, Inc., Brooklyn, N. Y.

## BURNERS, OIL, HIGH PRESSURE

(No. 2 OII)

Acme Oil Burner Co., Inc., Cedar Rapids, Ia. Aldrich Co., Wyoming, Ill. Allied Federal Industries, Newark, N. J. American Furnace Co., St. Louis, Mo. American Mohawk Div., Burner Mfg. Corp. of America, New American-Standard Air Conditioning Div., New York, N. Y. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O.
Arrow Foundry Co., Freeport, Ill.
Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Automatic Burner Corp., Chicago, Ill. Automatic Burner Corp., Chicago, Ill.
Bard Mfg. Co., Bryan, O.
Beckett Corp., R. W., Elyria, O.
Bethlehem Foundry & Machine Co., Bethlehem, Pa.
Burn-Rite Products Co., Yonkers, N. Y.
Caloroil Burner Corp., Hartford, Conn.
Carlin Co., The, Wethersfield, Conn.
Cary Mfg. Co., Waupaca, Wis.
Century Engineering Corp., Cedar Rapids, Ia.
Chalmers Oil Burner Co., Minneapolis, Minn.
Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Conco Engineering Div.. Mendota, III. Crane Co., Chicago, Ill. Crown Home Equipment Co., Philadelphia, Pa.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dornback Furnace & Foundry Co., Eastlake, O. Dowagiac Steel Furnace Co., Dowagiac, Mich. East Coast Co., Boston (Wellesley), Mass. Eastern Oil & Equipment Co., Portland, Maine Eckhart Mfg. Co., Inc., Union, N. J.
Eclipse Fuel Engineering Co., Rockford, Ill.
Electric Furnace-Man, Inc., Emmaus, Pa.
Electro-Watt, Inc., Seattle, Wash.
Electro Burner Mfg. Co., Inc., Rutherford, N. J.
General Automatic Products Corp., Baltimore, Md.
General Oil Heating Corp., West New York, N. J.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Green-Colonial Inc., Des Moines, Ia.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Harvey, Inc., Sid, Valley Stream, N. Y.
Heating Specialties Inc., Baltimore, Md.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, O.
Herco Oil Burner Corp., Lancaster, Pa.
Hershey Motorstokor, Manheim, Pa.
HomEase Products Div. of Bogue Electric Mfg. Co., F Eastern Oil & Equipment Co., Portland, Maine HomEase Products Div. of Bogue Electric Mfg. Co., Paterson. N. J. International Heater Co., Utica, N. Y. Iron Fireman Mfg. Co., Cleveland, O. Jet-Heet, Inc., Englewood, N. J. Johnson Co., S. T., Oakland, Calif. Kol-Master Corp., Oregon, Ill. Kresky Mfg. Co., Inc., Petaluma, Calif. Kresno-Stamm Mfg. Co., Palisades Park, N. J. Laco Oil Burner Co., Inc., Griswold, Ia.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Lynn Products Co., Lynn, Mass. Majestic Co., Huntington, Ind. Mayflower Air Conditioners, Inc., St. Paul, Minn. McDonald Mfg. Co., A. Y., Dubuque, Iowa. McPherson Furnace & Supply Co., Portland, Ore. Metzger Machine & Engineering Co., Thermoslo Div., Milwaukee, Wis. Meyer Furnace Co., Peoria, Ill. Montag Inc., Portland, Ore. Morrison Steel Products, Inc., Buffalo, N. Y. Mortemp Corp., Seattle, Wash. Mueller Climatrol, Milwaukee, Wis.

National Airoil Burner Co., Inc., Philadelphia, Pa. National-U. S. Radiator Corp., Johnstown, Pa. Niagara Furnace Div., Forest City Foundries Co., Cleveland, O O.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Nu-Way Corp., The, Rock Island, Ill.
Oil Equipment Laboratories, Inc., Elizabeth, N. J.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill. Peerless Corp., Indianapolis, Ind. Peerless Corp., Indianapolis, Ind.
Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Petro Div., Iron Fireman Mfg. Co., Cleveland, O.
Preferred Utilities Mfg. Corp., New York, N. Y.
Premier Furnace Co., Dowagiac, Mich.
Premium Coal & Oil Co., Cincinnati, O.
Quick Furnace & Supply Co., Des Moines, Ia.
Quiet Automatic Burner Corp., Newark, N. J.
Quiet-Heet Div., Burner Mfg. Corp. of America, New York, N. Y.
Radiant Utilities Corp., Brooklyn, N. Y.
Ray Oil Burner Co., San Francisco. Calif. Ray Oil Burner Co., San Francisco, Calif.

Ray Oll Burner Co., San Francisco, Calit.
Red Wing Oil Burner Co., Inc., Medford, Mass.
Reif-Rexoil, Inc., Buffalo, N. Y.
Rossoe Mfg. Co., Seattle, Wash.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
S-K Co., Inc., Camden, N. J.
Sandberg Mfg. Co., Portland, Ore.
Schwab Safe Co., Lafayette, Ind.
Sheet Metal Mfg. Co., Youngstown, O. Sheet Metal Mfg. Co., Youngstown, O. Silent Automatic Products, Cleveland, O. Silent-Flame Products, Blue Point Electronics Corp., Blue Point, L. I., N. Y.

Stilent Glow Oil Burner Co., Hartford, Conn.
Simplex Oil Heating Corp., Philadelphia, Pa.
Standard Automatic Oil Burner Co., Newark, N. J.
Steel City Furnace Corp., Springdale, Pa.
Stewart-Warner Corp., Heating and Air Conditioning Div.,

Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind.
Stratton & Terstegge Co., Louisville, Ky.
Sun-Ray Burner Mfg. Corp., Jamaica, N. Y.
Synchronous Flame, Inc., Walworth, Wis.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Tru-Heet Co., Trenton, N. J.
Twin Control Burner Mfg. Co., New York, N. Y.
Viking Mfg. Corp., Cleveland, O.
Volcano Burner Mfg. Inc., New York, N. Y.
Waltham Oil Burner Co., Inc., Boston, Mass.
Wayne Home Equipment Co., Inc., Et. Wayne, Ind.
Weatherall Engineers, Inc., Providence, R. I.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

Williams Oil-O-Matic Heating Co., Div. of National Univ. Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, O. Wisconsin Burners Inc., Madison, Wis. Wood Co., John, Heater & Tank Div., Conshohocken, Pa. York-Shipley, Inc., York, Pa.

BURNERS, OIL, LOW PRESSURE

Bard Mfg. Co., Bryan, O.

Herco Oil Burner Corp., Lancaster, Pa.

Mortemp Corp., Seattle, Wash.

Nu-Way Corp., The, Rock Island, Ill.

Radiant Utilities Corp., Brooklyn, N. Y.

Stewart-Warner Corp., Heating and Air Conditioning Div.,

Lebanoa, Ind.

Weatherall Engineers, Inc., Providence, R. I.

Williams Oil-O-Matic Heating Co., Div. of National Union

Electric Corp., Columbus, O. Electric Corp., Columbus, O.

(No. 2 OII)

### BURNERS, OIL, ROTARY (No. 2 OII)

Chalmers Oil Burner Co., Minneapolis, Minn. Ray Oil Burner Co., San Francisco, Calif. Rayfield-Staffco Burner Co., Chicago, Ill. Silent Automatic Products, Cleveland, O. Swirling Oil Burner Mfg. Corp., Jamaica, N. Y. Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Wood Co., John, Heater & Tank Div., Conshohocken, Pa.

#### BURRING MACHINES

See Machines, Burring

#### CABINETS AND CASINGS

Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, Ohio. Columbus, Ohio.
Atlas Mfg. Co., St. Paul, Minn.
Berger Div., Republic Steel Corp., Canton, O.
Biersach & Niedermeyer Co., Milwaukee, Wis.
Brundage Co., Kalamazoo, Mich.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Chicago Metal Mfg. Co., Chicago, Ill.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Faletzon, Co. Passair N. I. Dahlstrom Metallic Door Co., Jamestown, N. Y. Falstrom Co., Passaic, N. J. Harrison Sheet Steel Co., Chicago, Ill. Industrial Equipment Co., The, Minster, O. Kirk & Blum Mfg. Co., Cincinnati, Ohio. Moss Industries, Inc., Brooklyn, N. Y. Republic Steel Corp., Cleveland, O. Rybolt Heater Co., Ashland, O. St. Charles Mfg. Co., St. Charles, Ill. Steinhorst & Sons, Inc., Emil, Utica, N. Y. Thermo-Products, Inc., North Judson, Ind. Utica Products, Inc., Utica, N. Y. Zick Sheet Metal Works, Dearborn, Mich.

## CABLE, ELECTRIC HEATING

#### For Ceilings

Arvin Industries, Inc., Columbus, Ind.
Cavalier Corp., Electric Heating Div., Chattanooga, Tenn.
Ceilheat, Inc., Knoxville, Tenn.
Dixie Radiant Electric Heat Corp., Atlanta, Ga.
Emerson Electric Mfg. Co., St. Louis, Mo.
Everwarm, Inc., Knoxville, Tenn.
General Electric Co., Wiring Devices Dept., Providence, R. I.
Martin Stamping & Stove Co., Huntsville, Ala.
Modernheat Cable Corp., Kingsport, Tenn.
Rentip, Inc., Knoxville, Tenn.
Sunwarm, Inc., Kingsport, Tenn.
Tennessee Plastics, Inc., Johnson City, Tenn.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Zell-Aire Corp., Reading, Pa. Zell-Aire Corp., Reading, Pa.

## CALCULATORS, HEATING, AIR CONDITIONING AND SHEET METAL

Airserco Mfg. Co., Pittsburgh, Pa. American Instrument Co., Inc., Silver Spring, Md. (Psychro-Armco Steel Corp., Middletown, O. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Calculator Specialty Co., Chicago, Ill.
Dwyer Mfg. Co., F. W., Michigan City, Ind. (Heating and air flow) Morton Engineering Services, Paul S., Kalamazoo, Mich. Perrygraf Corp., Maywood, Ill. Smith Corp., A. O., Motor Div., Tipp City, O.

## CANOPIES, PREFABRICATED

Air Control Products, Inc., Coopersville, Mich. Kawneer Co., Niles, Mich. Mapes Industries, Inc., Lincoln, Nebr.

## CAPACITORS, ELECTRICAL, FOR POWER FACTOR CORRECTION

General Electric Co., Apparatus Sales Div., Schenectady, N. Y. General Electric Co., Capacitor Dept., Hudson Falls, N. Y. Mallory Co., Inc., P. R., Indianapolis, Ind. Potter Co., North Chicago, Ill. Sprague Products Co., North Adams, Mass.

#### CAPILLARY TUBING

See Tubing, Capillary, for Refrigerants

## CAPS AND TOPS, CHIMNEY

Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adams Co., Dubuque, Iowa.
Adelta Mfg. Co., Philadelphia, Pa.
Airjet Ventilator Co., San Clemente, Calif.
Allen Cooler & Ventilator Inc., Rochester, Mich.
Ammerman Co., Inc., Stillwater, Minn.
Armstrong Fittings Co., Des Moines, Ia.
Boston Machine Works Co., Lynn, Mass.
Breidert Co., G. C., San Fernando, Calif.
Champion Furnace Pipe Co., Peoria, Ill.
Condensation Engineering Corp., Chicago, Ill.
Corbman Bros., Inc., Philadelphia, Pa.
Excelsior Steel Furnace Co., Chicago, Ill.
Felter Co., John, Houston, Tex.
Hart & Cooley Mfg. Co., Holland, Mich.
Huncilman & Son, Bert R., New Albany, Ind.
Inland Steel Products Co., Milwaukee, Wis.
Kenetzer & Co., Frank, Chicago, Ill.
Leslie Welding Co., Inc., Chicago, Ill.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Majestic Co., Inc., Huntington, Ind.
Maurlee Co., Inc., Woodbury Hts., N. J.
McQuay, Inc., Minneapolis, Minn.
New Delphos Mfg. Co., Delphos, O.
Nicework Metal Products Co., Leetsdale, Pa.
Norwood Products Co., Div. A. R. Wood Mfg. Co., Luverne,
Minn.
Ohio Foundry & Mfg. Co., Steubenville, O.
Penn Supply & Metal Corp., Philadelphia, Pa.
Penn Ventilator Co., Inc., Philadelphia, Pa.
Royal Apex Mfg. Co., Inc., Brooklyn, N. Y.
St. Clair Metal Products Co., Cleveland, O.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
St. Clair Metal Products Co., Cleveland, O.
Sheet Metal Products Co., Cleveland, O.
Sheet Metal Products Co., Cloveland, O.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sioux Steel Co., Sioux Falls, S. D.
Southbridge Roofing C

## CAPS, FUEL TANK VENT

Accurate Sheet Metal & Mfg. Works, Chicago, Ill. Air-Maze Corp., Cleveland, O. Ammerman Co., Inc., Stillwater, Minn. Mirror Patented Stove Pipe Co., Hartford, Conn. Morse-Smith-Morse Co., The, Watertown, Mass. Preferred Utilities Mfg. Corp., New York, N. Y. Simplex Distributors, Brooklyn, N. Y.

#### CASINGS

See Cabinets and Casings

## CAULKING COMPOUNDS

See Compounds, Caulking

#### CEILING DIFFUSERS

See Diffusers, Air, Celling

### CEILINGS, METAL

Airson Co., Inc., Milwaukee, Wis. Bdwards Mfg. Co., Inc., Cincinnati, Ohio. Fenestra Inc., Detroit, Mich. Hauserman Co., E. F., Cleveland, Ohio.
Metalines, Inc., Rockford, Ill.
Reynolds Metals Co., Richmond, Va.
Tennessee Coal, Iron & Railroad Co., Fairfield, Ala.
Thermotank, Inc., Detroit, Mich.
Tiffin Art Metal Co., Tiffin, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

### CEMENT, FURNACE

Acme Asbestos Covering & Flooring Co., Chicago, Ill. Baldwin-Ehret-Hill, Inc., Trenton, N. J. Botfield Refractories Co., Philadelphia, Pa. Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. Clinton Metallic Paint Co., Clinton, N. Y. Coleman Co., Everett, Mass. Hercules Chemical Co., Inc., New York, N. Y. Johns-Manville, New York, N. Y. Lastik Paint Inc., Pittsburgh, Pa. Nebel Mfg. Co., Cleveland, Ohio.
Nicolet Industries, Inc., Florham Park, N. J. Pecora, Inc., Philadelphia, Pa. Plastic Products Co., Detroit, Mich. Preferred Utilities Mfg. Corp., New York, N. Y. Quigley Co., Inc., New York, N. Y. Radiator Specialty Co., Charlotte, N. C. Refractory & Insulation Corp., New York, N. Y. Rutland Fire Clay Co., Rutland, Vt. S.O.S. Products Co., Inc., Brooklyn, N. Y. Sauereisen Cements Co., Pittsburgh, Pa. Smooth-on Mfg. Co., Jersey City, N. J. Standard Asbestos Mfg. Co., Chicago, Ill. Standard Fuel Engineering Co., Detroit, Mich. Tamms Industries, Inc., Chicago, Ill. United Gilsonite Laboratories, Scranton, Pa. Wilson, Inc., Grant, Chicago, Ill.

## CEMENT, INSULATING

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos, mineral wool & magnesia). Armstrong Cork Co., Lancaster, Pa. Baldwin-Ehret-Hill, Inc., Trenton, N. J. (Asbestos and mineral wool) Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. (Abestos, magnesia, rock wool). Coleman Co., Everett, Mass. Denver Fire Clay Co., Denver, Colo. (Vermiculite & rock wool; high temperature). Fibreboard Paper Products Corp., San Francisco, Calif. (Magnesia and calcium silicate) nesia and calcium silicate)
Forty-Eight Insulations, Inc., Aurora, Ill.
Green Fire Brick Co., A. P., Mexico, Mo. (Mineral wool).
International Vermiculite Co., Girard, Ill. (Vermiculite)
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa. (Asbestos).
Mundet Cork Corp., North Bergen, N. J. (Magnesia).
Nicolet Industries, Inc., Florham Park, N. J.
Nicolet Industries, Inc., Norristown, Pa. (Asbestos, rockwool & magnesia). & magnesia).

Ohmlac Paint & Refining Co., Chicago, Ill. (Asphalt & asbestos).

Preferred Utilities Mfg. Corp., New York, N. Y.

Pyrolite Products Co., Cleveland, Ohio.

Quigley Co., Inc., New York, N. Y. (Asbestos).

Ramtite Co., Div. of Obermayer Co., Chicago, Ill.

Refractory & Insulation Corp., New York, N. Y. (Castable refractives). tory).

Rex Roto Corp., Walled Lake, Mich.

Robinson Insulation Co., Great Falls, Mont. (Vermiculite).

Ruberoid Co., New York, N. Y. (Asbestos).

Rutland Fire Clay Co., Rutland, Vt. (Asbestos).

Sauereisen Cements Co., Pittsburgh, Pa.

Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos).

Standard Fuel Engineering Co., Detroit, Mich. (Rock wool & asbestos). bestos). Desius).

Thomson & Co., Oakmont, Pa. (Asbestos).

United States Mineral Wool Co., Stanhope, N. J. (Mineral wool).

Wilson, Inc., Grant, Chicago, Ill. (Asbestos).

Zonolite Co., Chicago, Ill. (Vermiculite).

#### **CEMENT, REFRACTORY**

See Refractories

### CEMENT, ROOF

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Barrett Div. Allied Chemical & Dye Corp., New York, N. Y.
Bird & Son, Inc., East Walpole, Mass.
Blue Ridge Talc Co., Inc., Henry, Va.
Calbar Paint & Varnish Co., Philadelphia, Pa.
Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio.
Carter Paint Co., Inc., Liberty, Ind.
Celotex Corp., Chicago, Ill.
Certain-teed Products Corp., Ardmore, Pa.
Continental Products Corp., Ardmore, Pa.
Continental Products Co., Euclid, Ohio.
Coopers Creek Chemical Corp., West Conshohocken, Pa.
Flinikote Co., New York, N. Y.
Glidden Co., Cleveland, Ohio.
Horn Co., Inc., A. C., Long Island City, N. Y.
Iowa Paint Mfg. Co., Inc., Des Moines, Iowa.
Iron-Hide Sales Co., Matawan, N. J.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Koppers Co., Inc., Pittsburgh, Pa.
Lastik Paint Inc., Pittsburgh, Pa.
Meadows, Inc., W. R., Elgin, Ill.
Midland Paint & Varnish Co., Cleveland, Ohio.
National Mfg. Corp., Tonawanda, N. Y.
Nebel Mfg. Co., Cleveland, Ohio.
North American Mogul Products Co., Cleveland, Ohio.
Ohmlac Paint & Refining Co., Chicago, Ill.
Pecora, Inc., Philadelphia, Pa.
Pittsburgh Coke & Chemical, Summit, Ill.
Presstite Div., American-Marietta Co., St. Louis, Mo.
Ruberoid Co., New York, N. Y.
Rutland Fire Clay Co., Rutland, Vt.
S.O.S. Products Co., Inc., Brooklyn, N. Y.
Sounbort Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
Thompson & Co., Oakmont, Pa.
Tropical Paint Co., Cleveland, Ohio.
United Gilsonite Laboratories, Scranton, Pa.
United States Gypsum Co., Chicago, Ill.
Whitlam Mfg. Co., J. C., Wadsworth, O.

## CENTERS, CONTROL AND INSTRUMENT, RESIDENTIAL AIR CONDITIONING AND HEATING, FOR INSTALLATION IN LIVING AREA

American-Standard Air Conditioning Div., New York, N. Y. Carrier Corp., Syracuse, N. Y. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.

## CHAIN, FURNACE

Bead Chain Mfg. Co., Bridgeport, Conn. Hart & Cooley Mfg. Co., Holland, Mich. McKay Co., Pittsburgh, Pa. Tamms Industries Co., Chicago, Ill. Turner & Seymour Mfg. Co., Torrington, Conn. United States Register Co., Battle Creek, Mich.

## CHAMBERS, COMBUSTION, PREFORMED

Armstrong Cork Co., Lancaster, Pa. (Insulating refractory).
Babcock & Wilcox Co., Refractories Div., New York, N. Y.
Boston Machine Works Co., Lynn, Mass. (Insulating brick).
Gem Clay Forming Co., Sebring, O.
Green Fire Brick Co., A. P., Mexico, Mo. (Fire clay, insulating brick).
Harvey, Inc., Sid, Valley Stream, N. Y.
Higgins Metal Products Co., The, Swanton, O.
Kolb Refractories Co., Philadelphia, Pa.
Monogram Products Co., Inc., Philadelphia, Pa. (Insulating refractory).
Mortemp Corp., Seattle, Wash. (Chrome steel).
Oil Equipment Mfg. Co., New Haven, Conn. (Inconel).
Peterson Co., B. A., Dowagiac, Mich.
Refractory & Insulation Corp., New York, N. Y. (Refractory).
Rehm-Schiess Comb. Eng. Service Co., Jamaica, N. Y. (Radiant silicons)

Rex Roto Corp., Walled Lake, Mich. (Refractory)
S.O.S. Products Co., Inc., Brooklyn, N. Y.
Sandberg Mfg. Co., Portland, Ore. (Stainless steel).
Shenango Refractories Co., New Castle, Pa.
Universal Zonolite Insulation Co., Chicago, Ill. (Vermiculite concrete).
Webber Co., A. R., New Haven, Conn. (Refractory).
Wilson, Inc., Grant, Chicago, Ill.

## CHAMBERS, PLENUM, PREFABRICATED

Henry Furnace Co., Medina, O. Inland Steel Products Co., Milwaukee, Wis. Maurlee Co., Inc., Woodbury Heights, N. J. Olsen Mfg. Co., The C. A., Elyria, O.

#### CHANNELS

See Angles, Bars, Beams, Channels and Tees

## CHARGING PANEL FOR REFRIGERANTS

See Pumps, Refrigerant Transfer

## CHEMICALS FOR CLEANING

See Compounds, Cleaning, Condensor and Coli

## CHEMICALS, RUST PREVENTIVE

American Chemical Paint Co., Ambler, Pa.
American Sand-Banum Co., Inc., Merrick, N. Y.
Aquatrol Laboratories, Inc., Clifton, N. J.
Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pitts-burgh, Pa.
Cristy Specialty Corp., Worcester, Mass.
Dearborn Chemical Co., Chicago, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Industrial Service Laboratories, Milwaukee, Wis.
Klem Chemicals, Inc., Dearborn, Mich.
Magnus Chemical Co., Garwood, N. J.
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Mortell Co., J. W., Kankakee, Ill.
Neilson Chemical Co., Detroit, Mich.
North American Mogul Products Co., Cleveland, Ohio.
Oakite Products, Inc., New York, N. Y.
Okun Co., Inc., A. I., So. Ozone Park, N. Y.
Pennsalt Chemicals Corp., Philadelphia, Pa.
Pennsylvania Refining Co., Ohio Div., Cleveland, Ohio.
Protective Coatings, Inc., Detroit, Mich.
Radiator Specialty Co., Charlotte, N. C.
Rust-Oleum Corp., Evanston, Ill.
S.O.S. Products Co., Inc., Brooklyn, N. Y.
Sudbury Laboratory, Sudbury, Mass.
Truscon Laboratories, Detroit, Mich.
Turco Products, Inc., Los Angeles, Calif.
Wolfe-Kote Co., Sheboygan, Wis.

#### CHIMNEY CAPS

See Caps and Tops, Chimney

#### CHIMNEY LINERS

See Linings, Chimney

## CHIMNEYS, PREFABRICATED

American Metal Products, Los Angeles, Calif.
Chimney Sales Corp., Washington, D. C.
Condensation Engineering Corp., Chicago, Ill.
Dura-Vent Corp., Louisville, Ky.
General Products Co., Fredericksburg, Va.
Hart & Cooley Mfg. Co., Holland, Mich.
Huncilman & Son, Bert R., New Albany, Ind.
Majestic Co., Inc., Huntington, Ind.
McQuay, Inc., Minneapolis, Minn.
Van-Packer Co., Div. of Flinkote Co., Chicago Heights, Ill.
Wallace Co., William, Metalbestos Div., Belmont, Calif.

### CIRCULAR SAWS

See Machines, Sheet Metal Working, Saws, Circular

## CLAMPS, BEAM, DUCT HANGING

Tinnerman Corp., Geo. A., Cleveland, O.

## CLEANERS, AIR, ELECTRONIC (WITH OUTSIDE POWER SOURCE)

Air-Maze Corp., Cleveland, Ohio.
American Air Filter Co., Inc., Louisville, Ky.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Dollinger Corp., Rochester, N. Y.
Electro-Air Cleaner Co., Inc., McKees Rocks, Pa.
Hall-Neal Furnace Co., Indianapolis, Ind.
Mamco Corp., Racine, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Mueller Climatrol, Milwaukee, Wis.
Radex Corp., Chicago, Ill.
Rybolt Heater Co., Ashland, O.
Trion, Inc., McKees Rocks, Pa.
Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston,
Mass.

## CLEANERS, POLISHERS AND FINISHERS, METAL

Allen Co., Inc., I. B., Schiller Park, Ill. (Stainless steel & monel).

American Chemical Paint Co., Ambler, Pa.

Armour Alliance Industries, Alliance, O. (Polishing paper)

Brulin & Co., Inc., Indianapolis, Ind. (De-greasing compound).

Colonial Alloys Co., Philadelphia, Pa.

du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (All metals).

Klem Chemicals, Inc., Dearborn, Mich.

Magnus Chemical Co., Garwood, N. J.

Minnesota Mining and Mfg. Co., Coated Abrasives and Related Products Div., St. Paul, Minn.

Neilson Chemical Co., Detroit, Mich.

NuSteel Co., Chicago, Ill. (Aluminum & stainless steel).

Oakite Products, Inc., New York, N. Y.

Pennsalt Chemicals Corp., Philadelphia, Pa. (Ferrous and nonferrous).

Protective Coatings, Inc., Detroit, Mich.

Randolph-Page, Inc., New York, N. Y. (Aluminum)

Standard Steel Spring Co., Gary, Ind.

Tarms Industries Co., Chicago, Ill.

Truscon Laboratories, Detroit, Mich.

Turco Products, Inc., Los Angeles, Calif.

Western Reserve Laboratories, Cleveland, Ohio.

Wolfe-Kote Co., Sheboygan, Wis.

#### CLEANERS, VACUUM, FURNACE

Ace-Sycamore, Inc., Sycamore, III.
American Cleaning Equipment Corp., Schiller Park, Ill.
Baker Furnace & Cleaner Mfg. Co., Toledo, Ohio.
Breuer Flectric Mfg. Co., Chicago, III.
Choidam Mfg. Corp., New Haven, Conn.
Doyle Vacuum Cleaner Co., Grand Rapids, Mich.
Empire Chemical Products Co., Newark, N. J.
General Blower Co., Morton Grove, Ill.
Harvey, Inc., Sid, Valley Stream, N. Y.
Hasko Utilities Co., New York, N. Y.
Ideal Industries, Inc., Sycamore, Ill.
Kent Co., Inc., Rome, N. Y.
Naster-Craft Industries, Inc., Garfield, N. J.
National Super Service Co., Toledo, Ohio,
Premier Co., St. Paul, Minn.
Pullman Vacuum Cleaner Corp., Boston, Mass.
Spencer Turbine Co., Hartford, Conn.
Thompson & Sons, Inc., Lyons, Ill.

## CLEANERS, VACUUM, FURNACE AND DUCT, TRUCK OR TRAILER MOUNTED

Delamater Equipment Co., Inc., Rockford, Ill. Kleen Air Mfg. Corp., Janesville, Wis. Meyer & Sons, Inc., W. W., Skokie, Ill. Molloy Machine Corp., Chicago, Ill. Pringle & Sons, R. A., Walla Walla, Wash.

### CLEANING COMPOUNDS

See Compounds, Cleaning

### CLEANOUT DOORS

See Doors, Metal, Cleanout

#### CLEAT BENDERS

See Machines, Cleat Bending

#### CLEATS, DRIVE

See Connectors, Metal

#### CLEATS, SHEET METAL

See Fastenings, Sheet Metal

## CLIPS, FASTENING, ROOFING

Bard Mfg. Co., Bryan, Ohio. Berger Bros., Co., Philadelphia, Pa. Inland Steel Products Co., Milwaukee, Wis. Lexsuco, Inc., Solon, O. Southbridge Roofing Co., Inc., Southbridge, Mass.

## CLIPS AND TIPS, DAMPER

Berger Bros. Co., Philadelphia, Pa.
Duro-Dyne Corp., Farmingdale, N. Y.
Gerett Corp., M. A., Milwaukee, Wis.
Hart & Cooley Mfg. Co., Holland, Mich.
Howes-Woods Co., Cambridge, Mass.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Severson Mfg. & Supply Co., Milwaukee, Wis.
United States Register Co., Battle Creek, Mich.

## CO2 ANALYZERS

See Analyzers, CO;

#### COAL BURNERS, AUTOMATIC

See Stokers

## COATINGS, METAL PROTECTIVE

Allied Porcenell, Inc., Waukegan, Ill.
American Agile Corp., Bedford, O.
Arco Co., Cleveland, O.
Atlas Mineral Products Co., Mertztown, Pa.
Carboline Co., St. Louis, Mo.
Chemical Coatings & Engineering Co., Inc., Media, Pa.
Continental Coatings Corp., Cleveland, O.
Heresite & Chemical Co., Manitowoc, Wis.
Interchemical Corp., Finishes Div., Newark, N. J.
Koppers Co., Inc., Tar Products Div., Pittsburgh, Pa. (Bitumastic)
Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers
Div., St. Paul, Minn.
Mortell Co., J. W., Kankakee, Ill.
PSC Inc., New York, N. Y.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Pittsburgh Coke & Chemical, Summit, Ill.
Polymer Corp., Reading, Pa. (Plastic)
Rusticide Products Co., Cleveland, O.
Solfo Paint Mfg. Co., Trenton, N. J.

## COILS, BLAST, ELECTRIC

See Surface, Fin, Electric Heating Element

## **COILS, COOLING, DIRECT EXPANSION**

Addison Products Co., Addison, Mich. Aerofin Corp., Syracuse, N. Y.
Airtemp Div., Chrysler Corp., Dayton, O.
American-Standard Air Conditioning Div., New York, N. Y.
American-Standard Industrial Div., Detroit, Mich. Anderson-Snow Corp., Chicago, Ill.

Armstrong Furnace Co., Columbus, O.

Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill. Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill. Blissfield Mfg. Co., Blissfield, Mich. Bohn Aluminum & Brass Corp., Detroit, Mich. Bryant Mfg. Co., Indianapolis, Ind. Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Carrier Corp., Syracuse, N. Y. Century Engineering Corp., Cedar Rapids, Ia. Chicago Steel Furnace Co., Chicago, Ill. Circle Equipment Co., Indianapolis, Ind. Cobell Industries, Inc., Cleburne, Tex. Coleman Co., Inc., Wichita, Kans. Columbia Burner Co., Toledo, O. Conditionaire Unit Co., Chicago, Ill. Coolenheat, Inc., Woodbridge, N. J. Cool-Ette, Inc., Detroit, Mich. Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo. Day & Night Mfg. Co., La Puente, Calif. Delco Appliance Div., General Motors Corp., Rochester, N. Y. Drayer-Hanson, Div. of National-U. S. Radiator Corp., Los Angeles, Calif. Angeles, Calif. Dunham-Bush, Inc., West Hartford, Conn. Fraser & Johnston Co., San Francisco, Calif. Frick Co., Waynesboro, Pa.
Frigid Coil, Inc., El Monte, Calif.
G & O Mfg. Co., New Haven, Conn.
Gaffers & Sattler, Los Angeles, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex. General Electric Co., All Conditioning Governair Corp., Oklahoma City, Okla. Great Northern Mfg. Co., Chicago, Ill. Hall-Neal Furnace Co., Indianapolis, Ind. Halstead & Mitchell, Pittsburgh, Pa. Hastings Air Control, Inc., Omaha, Nebr. Heat Controller, Inc., Jackson, Mich. Heary Furnace Co., Medina, O.
Holly-General Co., Medina, O.
Holly-General Co., Pasadena, Calif.
International Heater Co., Utica, N. Y.
International Mfg. Co., Oklahoma City, Okla.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo. Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Magic Aire Div., United Electric Co., Wichita Falls, Tex.
Majestic Co., Inc., Huntington, Ind.
Marlo Coil Co., St. Louis, Mo.
McCord Corp., Detroit. Mich. McCord Corp., Detroit, Mich. McQuay, Inc., Minneapolis, Minn. Meyer Furnace Co., Peoria, Ill. Miami Products, Inc., Miami, Okla. Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee, Wis. Muncie Gear Works, Cordele, Ga. National-U. S. Radiator Corp., Johnstown, Pa. Niagara Blower Co., New York, N. Y. Niagara Furnace Div., Forest City Foundries Co., Cleveland, Olsen Mfg. Co., The C. A., Elyria, O. Payne Co., The, La Puente, Calif. Peerless Corp., Indianapolis, Ind. Peerless of America, Inc., Chicago, Ill. Perfection Industries, Div. of Hupp Corp., Cleveland, O. Perfex Corp., Milwaukee, Wis. RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich. Recold Corp., Los Angeles, Calif. Refrigeration Appliances, Inc., Chicago, Ill. Rempe Co., Chicago, Ill. Rigidbilt, Inc., Franklin Park, Ill. Rinehart, Inc., Richmond, Ind. Roberts-Gordon Appliance Co., Buffalo, N. Y.

Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Shana Mfg., Inc., Chicago, Ill.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Smith, Inc., E. B., St. Petersburg, Fla.
Southwest Mfg. Co., Aurora, Mo.
Super Radiator Corp., Minneapolis, Minn.
Temco, Inc., Nashville, Tenn.
Temco, Inc., Nashville, Tenn.
Temperature Control, Inc., Atlanta, Ga.
Tenney Engineering, Inc., Union, N. J.
Thatcher Furnace Co., Garwood, N. J.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., La Crosse, Wis.
Tubenfin Coil Co., Houston, Tex.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
United Electric Co., Wichita Falls, Tex.
United States Air Conditioning Corp., Delaware, O.
Vendorlator Mfg. Co., Fresno, Calif.
Wall Tube and Metal Products Co., Newport, Tenn.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union
Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Will Co. Inc., A. H., Los Angeles, Calif.
Worthington Corp., Harrison, N. J.
York Corp., Commercial Div., Subsidiary of Borg-Warner
Corp., York, Pa.
York-Shipley, Inc., York, Pa.

## COILS, COOLING, WATER

Aerofin Corp., Syracuse, N. Y.
Anderson-Snow Corp., Chicago, Ill.
Carrier Corp., Syracuse, N. Y.
Conditionaire Unit Co., Chicago, Ill.
Coolenheat, Inc., Woodbridge, N. J.
Drayer-Hanson Div. of National-U. S. Radiator Corp., Los Angeles, Calif. Angeles, Calif.
Dunham-Bush, Inc., West Hartford, Conn.
Frick Co., Waynesboro, Pa.
G & O Mfg. Co., New Haven, Conn.
Governair Corp., Oklahoma City, Okla.
Halstead & Mitchell, Pittsburgh, Pa.
Hastings Air Control, Inc., Omaha, Nebr. Heatron, Inc., York, Pa. Henry Furnace Co., Medina. O. International Mfg. Co., Oklahoma City, Okla Kennard Corp., St. Louis, Mo. Kramer Trenton Co., Trenton, N. J. Larkin Coils, Inc., Atlanta, Ga. Magic Aire Div., United Electric Co., Wichita Falls, Tex. Marlo Coil Co., St. Louis, Mo. McCord Corp., Detroit, Mich. McQuay, Inc., Minneapolis, Minn. Modine Mfg. Co., Racine, Wis. National Pipe Bending Co., New Haven, Conn. National-U. S. Radiator Corp., Johnstown, Pa. Nesbitt, Inc., John J., Philadelphia, Pa Niagara Blower Co., New York, N. Y. Payne Co., The, La Puente, Calif. Peerless of America, Inc., Chicago, Ill. Recold Corp., Los Angeles, Calif. Refrigeration Appliances, Inc., Chicago, Ill. Rempe Co., Chicago, Ill. Rigidbilt, Inc., Franklin Park, Ill. Roessing Mfg. Co., Sharpsburg Sta., Pittsburgh, Pa. Rome-Turney Radiator Co., Rome, N. Y. Rybolt Heater Co., Ashland, O. Super Radiator Corp., Minneapolis, Minn. Tenney Engineering, Inc., Union, N. J. Trane Co., La Crosse, Wis. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N.Y. United States Air Conditioning Corp., Delaware, O. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Wing Mfg. Div., L. J., Aero Supply Mfg. Co., Inc., Linden, N. J. Witt Co. Inc., A. H., Los Angeles, Calif. Worthington Corp., Harrison, N. J.

York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

Young Radiator Co., Racine, Wis.

Roessing Mfg. Co., Sharpsburg Sta., Pittsburgh, Pa.

Rome-Turney Radiator Co., Rome, N. Y.

## COILS, FIRE POT, DOMESTIC HOT WATER

Adams Co., Dubuque, Iowa. Rempe Co., Chicago, Ill. Therm Off Burner Co., Seattle, Wash.

## COILS, HEATING

Aerofin Corp., Syracuse, N. Y.
American Coils, Inc., Newark, N. J.
American-Standard Industrial Div., Detroit, Mich.
Anderson-Snow Corp., Chicago, Ill.
Bayley Blower Co., Milwaukee, Wis. Bayley Blower Co., Milwaukee, W.B.
Carrier Corp., Syracuse, N. Y.
Conditionaire Unit Co., Chicago, Ill.
Coolenheat, Inc., Woodbridge, N. J.
Drayer-Hanson, Div. of National-U. S. Radiator Corp., Los Angeles, Calif.
Dunham-Bush, Inc., West Hartford, Conn.
G & O Míg. Co., New Haven, Conn.
Governair Corp., Oklahoma City, Okla.
Halstead & Mitchell, Pittsburgh, Pa. Hastings Air Control, Inc., Omaha, Nebr. Heatron, Inc., York, Pa. International Mfg. Co., Oklahoma City, Okla. Kennard Corp., St. Louis, Mo. Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
Marlo Coil Co., St. Louis, Mo.
McCord Corp., Detroit, Mich.
McQuay, Inc., Minneapolis, Minn.
Modine Mfg. Co., Racine, Wis.
National Pipe Bending Co., New Haven, Conn.
National-U. S. Radiator Corp., Johnstown, Pa.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville Ku Kramer Trenton Co., Trenton, N. J. ville, Ky. ville, K.y. Nesbitt, Inc., John J., Philadelphia, Pa. New York Blower Co., Chicago, Ill. Niagara Blower Co., New York, N. Y. Peerless of America, Inc., Chicago, Ill. Recold Corp., Los Angeles, Calif. Refrigeration Appliances, Inc., Chicago, Ill. Rempe Co., Chicago, III.
Rigidbilt, Inc., Franklin Park, III.
Roessing Mfg. Co., Pittsburgh, Pa.
Rome-Turney Radiator Co., Rome, N. Y.
Super Radiator Corp., Minneapolis, Minn.
Trane Co., La Crosse, Wis. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, United States Air Conditioning Corp., Delaware, O. Wilcan Radiator Co., Hartford. Conn.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.
Witt Co. Inc., A. H., Los Angeles, Calif.
Worthington Corp., Harrison, N. J.
York Corp., Subsidiary of Borg. Warner Corp., York, Pa. Young Radiator Co., Racine, Wis.

## COLLECTORS, DUST

Aerotec Corp., The, Greenwich, Conn.
Aget Míg. Co., Adrian, Mich.
American Air Filter Co., Inc., Louisville, Ky.
American-Standard Industrial Div., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Carolina Blower Co., Inc., Greensboro, N. C.
Day Co., Minneapolis, Minn.
DeVilbiss Metal Fabricators Co., Detroit, Mich.
Ducton Co., The, Mineola, N. Y.
Dustender Co., Ann Arbor, Mich.
Dust Suppression & Engineering Co., Lake Orion, Mich.
Farr Co., Los Angeles, Calif.
Goergen-Mackwirth Engineering Co., Buffalo, N. Y.
Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
Hammond Michinery Builders, Inc., Kalamazoo, Mich.
Joy Mfg. Co., Pittsburgh, Pa.
Kice Metal Products Co., Wichita, Kans.
Kindt-Collins Co., Cleveland, O.
Kirk & Blum Mfg. Co., Cincinnati, O.
Lumm Co., A. H., Toledo, Ohio.
Mahon Co., R. C., Detroit, Mich.
Northern Blower Co., Cleveland, Ohio.
Pangborn Corp., Hagerstown, Md.
Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
Rees Blow Pipe Mfg. Co., Berkeley, Calif.

Ruemelin Mfg. Co., Milwaukee, Wis.
Schneible Co., Claude B., Detroit, Mich.
Skinner Heating & Ventilating Co. Div. Young Sales Corp., St.
Louis, Mo.
Sly Mfg. Co., W. W., Cleveland, Ohio.
Torit Mfg. Co., St. Paul, Minn.
United Sheet Metal Co., Inc., Columbus, O.
Vacu-Blast Co., Inc., Belmont, Calif.
Western Blower Co., Seattle, Wash.
Western Precipitation Corp., Los Angeles, Calif.
Winkler & Sons, Inc., A. E., Milwaukee, Wis.
Young & Bertke Co., Cincinnati, Ohio.
Zack Co., The, Machinery and Equipment Div., Detroit, Mich.
(Wet type)

### COMBUSTION CHAMBERS

See Chambers, Combustion, Preformed; Baffles, Combustion
Chamber

#### COMBUSTION CONTROLS

See Controls; Dampers, Draft

#### COMBUSTION HEADS, OIL BURNER

See Burner Parts, Oll

#### COMBUSTION TESTING EQUIPMENT

See Analyzers, CO:; Gages, Draft; Thermometers

### COMPOUNDS, AIR FRESHENING

Easton R. S. Corp., Brooklyn, N. Y.

## COMPOUNDS, ALUMINUM CLEANING

Anton Co., New York, N. Y. Farrelloy Co., Philadelphia, Pa. Klem Chemicals, Inc., Dearborn, Mich. Oakite Products Inc., New York, N. Y.

## COMPOUNDS, CAULKING

Allmetal Weatherstrip Co., Evanston, Ill.
Arco Co., Cleveland, O.
Armstrong Cork Co., Lancaster, Pa.
Babbitt Chemical Co. Inc., New Bedford, Mass.
Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
Blue Ridge Talc Co., Inc., Henry, Va.
Calbar Paint & Varnish Co., Philadelphia, Pa.
Carey Mfg. Co., Philip, Cincinnati, Ohio.
Carter Paint Co., Liberty, Ind.
Chamberlin Co. of America, Detroit, Mich.
Cheesman-Elliot Co., Inc., Brooklyn, N. Y.
Chemical Coatings & Engineering Co., Inc., Media, Pa.
Continental Products Co., Euclid, Ohio.
Dicks-Armstrong-Pontius, Inc., Dayton, O.
Division Lead Co., Summit, Ill.
Fibreboard Paper Products Corp., San Francisco, Calif.
Flintkote Co., New York, N. Y.
Gates Engineering Co., Wilmington, Del.
Glidden Co., Cleveland, Ohio.
Goodrich Industrial Products Co., B. F., Akron, Ohio.
Horn Co., Inc., A. C., Long Island City, N. Y.
Iowa Paint Mfg. Co., Inc., Des Moines, Ia.
Johns-Manville, New York, N. Y.
Lastik Paint Inc., Pittsburgh, Pa.
Magic Chemical Co., Brockton, Mass.
Meadows, Inc., W. R., Elgin, Ill.
Midland Paint & Varnish Co., Cleveland, Ohio.
Miracle Adhesives Corp., Bellmore, L.I., N. Y.
Mortell Co., J. W., Kankakee, Ill.
National Mfg. Corp., Tonawanda, N. Y.
Nebel Mfg. Co., Cleveland, Ohio.
Ohmlac Paint & Refining Co., Chicago, Ill.

Pecora, Inc., Philadelphia, Pa.

Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Plastic Products Co., Detroit, Mich.

Presstite Div., American-Marietta Co., St. Louis, Mo.

Products Research Co., Los Angeles, Calif.

Quigley Co., Inc., New York, N. Y.

Robertson Co., H. H., Pittsburgh, Pa.

S.O.S. Products Co., Inc., Brooklyn, N. Y.

Sherwin-Williams Co., Cleveland, Ohio.

Sipe & Co., James B., Pittsburgh, Pa.

Smooth-on Mfg. Co., Jersey City, N. J.

Sonneborn Sons, Inc., L., New York, N. Y.

Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savanah, Ga.

Tamms Industries Co., Chicago, Ill.

Travaco Laboratories, East Boston, Mass. (Plastic-metal base)

Tropical Paint Co., Cleveland, Ohio.

Truscon Laboratories, Detroit, Mich.

West Chester Chemical Co., West Chester, Pa.

Whitlam Mfg. Co., J. C., Wadsworth, O.

X-Pando Corp., Long Island City, N. Y.

## COMPOUNDS, CLEANING, AIR FILTER

Brulin & Co., Inc., Indianapolis, Ind.
Calgon, Inc., Pittsburgh, Pa.
City Chemical Corp., New York, N. Y.
Dollinger Corp., Rochester, N. Y.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Magnus Chemical Co., Garwood, N.J.
Montgomery Chemical Co., Jenkintown, Pa.
Oakite Products, Inc., New York, N. Y.

## COMPOUNDS, CLEANING, CONDENSER AND COIL

American Chemical Paint Co., Ambler, Pa.
Aquatrol Laboratories, Inc., Clifton, N. J.
Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pittsburgh, Pa.
Carolina Aniline & Extract Co., Inc., Charlotte, N. C.
Chemical Solvent Co., Birmingham, Ala.
Dearborn Chemical Co., Chicago, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Garman Co., Inc., St. Louis, Mo.
Lester Laboratories, Inc., Atlanta, Ga. (For use on coil face)
Magnus Chemical Co., Garwood, N. J.
Metropolitan Refining Co., Inc., Long Island City, N. Y.
North American Mogul Products Co., Cleveland, O.
Northeast Consultants, Inc., Framingham, Mass.
Oakite Products, Inc., New York, N. Y.
Pennsalt Chemicals Corp., Philadelphia, Pa.
Radiator Specialty Co., Charlotte, N. C.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Stilles Karlsonite Corp., Waukegan, Ill.
Turco Products, Inc., Los Angeles, Calif.
Virginia Smelting Co., West Norfolk, Va.

#### COMPOUNDS, DEGREASING

Brulin & Co., Inc., Indianapolis, Ind.
Dow Chemical Co., Midland, Mich.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Klem Chemicals, Inc., Dearborn, Mich.
Lester Laboratories, Inc., Atlanta. Ga.
Montgomery Chemical Co., Jenkintown, Pa.
Oakite Products, Inc., New York, N. Y.
Speco, Inc., Cleveland, O.
Stewart-Hall Chemical Corp., Mt. Vernon, N. Y.
Virginia Smelting Co., West Norfolk, Va.

## COMPOUNDS, GALVANIZING

American Solder & Flux Co., Philadelphia, Pa. Birchwood Chemical Co., Minneapolis, Minn. Galvicon Corp., New York, N. Y. RotoMetals, San Francisco, Calif.

## COMPOUNDS, WATER CONDITIONING

See Conditioners, Water

## COMPOUNDS, WINTER PROTECTIVE, PUMP

Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. Garman Co., Inc., St. Louis, Mo.

## COMPRESSORS, REFRIGERATING, OPEN

#### (Up to 180,000 Btuh only)

Brunner Div. of Dunham-Bush Inc., West Hartford, Conn. Carrier Corp., Syracuse, N. Y.
Copeland Refrigeration Corp., Sidney, Ohio.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Diceler Div. General Machine & Mfg. Co., Berwick, Pa.
Frick Co., Waynesboro, Pa.
Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa.
Reliance Refrigerating Machine Co., Chicago, Ill.
Tecumseh Products Co., Tecumseh, Mich.
Trane Co., LaCrosse, Wis.
Yeomans Bros. Co., Melrose Park, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

## COMPRESSORS, REFRIGERATING, SEALED

#### (Up to 180,000 Btuh only)

Bendix-Westinghouse Automotive Air Brake Co., Evansville, Ind.
Brunner Div. of Dunham-Bush Inc., West Hartford, Conn. Carrier Corp., Syracuse, N.Y.
Copeland Refrigeration Corp., Sidney, Ohio.
Diceler Div., General Machine & Mfg. Co., Berwick, Pa.
Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa.
Tecumseh Products Co., Tecumseh, Mich.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
York Corp., Subsidiary of Borg. Warner Corp., York, Pa.

#### CONDENSATE INJECTOR

See Injector for Removing Condensate from Air Conditioning Units

## CONDENSATE REMOVER

See Pumps, Condensate; Injector, Condensate

## CONDENSERS, REFRIGERATING, AIR COOLED

(Up to 180,000 Btuh only)

Aimco Products Corp., Inc., Subsidiary of Yuba Consolidated Industries, Inc., Tulsa, Okla.

Airtemp Div. Chrysler Corp., Dayton, Ohio.

American Coils Co., Farmingdale, N. J.

Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill.

Buffalo Forge Co., Buffalo, N. Y.

Corlean Corp., Syracuse, N. Y.

Cobell Industries, Inc., Cleburne, Tex.

Condenser Service & Engrg. Co., Inc., Hoboken, N. J.

Copeland Refrigeration Corp., Sidney, O.

Curtis Mfg. Co. Refrigeration Div., St. Louis, Mo.

Deansteel Products, San Antonio, Tex.

Drayer-Hanson, Div. of National-U.S. Radiator Corp., Los

Angeles, Calif.

Dunham-Bush, Inc., West Hartford, Conn.

Fedders Corp., Maspeth, N. Y.

Fraser & Johnston Co., San Francisco, Calif.

Halstead & Mitchell, Pittsburgh, Pa.

Kennard Corp., St. Louis, Mo.

Kirsch Co., Refrigeration Div., Sturgis, Mich.

Kramer Trenton Co., Trenton, N. J.

Larkin Coils, Inc., Atlanta. Ga.

Magic Aire Div., United Electric Co., Wichita Falls, Tex.

Marley Co., The, Kansas City, Mo.

Marlo Coil Co., St. Louis, Mo.

McQuay, Inc., Minneapolis, Minn.

Modine Mfg. Co., Racine, Wis.

Mueller Climatrol, Milwaukce, Wis.

National-U. S. Radiator Corp., Johnstown, Pa.

Peerless of America, Inc., Chicago, Ill.

Recold Corp., Los Angeles, Calif.
Refrigeration Appliances, Inc., Chicago, Ill.
Refrigeration Appliances, Inc., Chicago, Ill.
Res-Dent-Air Div., Peden Equipment Co., Houston, Tex.
Rome-Turney Radiator Co., Rome, N. Y.
Super Radiator Corp., Minneapolis, Minn.
Texas Pfroducts Mfg. Co., Waco, Tex.
United Electric Co., Wichita Falls, Tex.
United States Air Conditioning Corp., Delaware, O.
Wall Tube and Metal Products Co., Newport, Tenn.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williamson Co., The, Cincinnati, O.
Witt Co. Inc., A. H., Los Angeles, Calif.
York Corp., Subsidiary of Borg.-Warner Corp., York, Pa.

## CONDENSERS, REFRIGERATING, EVAPORATIVE

(Up to 180,000 Btuh only)

Acme Industries, Inc., Jackson, Mich.
Air Products, St. Louis, Mo.
Baltimore Aircoil Co., Inc., Baltimore, Md.
Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Cobell Industries, Inc., Cleburne, Tex.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Crowell & Dunn, Inc., New York, N. Y.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Drayer-Hanson, Div. of National-U.S. Radiator Corp., Los
Angeles, Calif.
Dunham-Bush, Inc., West Hartford, Conn.
Frick Co., Waynesboro, Pa.
Governair Corp., Oklahoma City, Okla.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
Akauffman Air Conditioning Corp., St. Louis, Mo.
Kennard Corp., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Recold Corp., Los Angeles, Calif.
Refrigeration Appliances, Inc., Chicago, Ill.
Trane Co., The, LaCrosse, Wis.
Wall Tube and Metal Products Co., Newport, Tenn.
Westinghouse Electric Corp., Air Conditioning Div., Staunton,
Va.
XL Refrigerating Co., Chicago, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

## CONDENSERS, REFRIGERATING, SHELL AND COIL

(Up to 180,000 Bruh only)

Acme Industries, Inc., Jackson, Mich.
Carrier Corp., Syracuse, N. Y.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Doyle & Roth Mfg. Co., Brooklyn, N. Y.
General Fittings Co., Providence, R. I.
Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa.
Nooter Corp., St. Louis, Mo.
Rempe Co., Chicago, Ill.
Rome-Turney Radiator Co., Rome, N. Y.
Standard Refrigeration Co., Chicago, Ill.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
XL Refrigerating Co., Chicago, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

## CONDENSERS, REFRIGERATING, SHELL AND TUBE

(Up to 180,000 Btuh only)

Acme Industries, Inc., Jackson, Mich.
Carrier Corp., Syracuse, N. Y.
Condenser Service & Engineering Co., Inc., Hoboken, N. J.
Curtls Mfg. Co., Refrigeration Div., St. Louis, Mo.
Devine Mfg. Co., J. P., Div. of H. K. Porter Co., Inc., Pittsburgh, Pa.
Doyle & Roth Mfg. Co., Brooklyn, N. Y.
Frick Co., Waynesboro, Pa.
Halstead & Mitchell, Pittsburgh, Pa.
Heat-X Inc., Subsidiary of Dunham-Bush Inc., Brewster, N. Y.
Howard Iron Works & Alberger Heater Div., Buffalo, N. Y.
Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa.
Nooter Corp., St. Louis, Mo.

Standard Refrigeration Co., Chicago, Ill.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
XL Refrigerating Co., Chicago, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

#### CONDENSING UNITS

See Unitary Air Conditioners, Summer, Condensing Unit

### CONDITIONERS, WATER

American Sand-Banum Co., Inc., Merrick, N. Y.

Ampion Corp., Long Island City, N. Y.

Aquatrol Laboratories, Inc., Clifton, N. J.

Calgon Co., Div of Hagan Chemicals & Controls, Inc., Pittsburgh, Pa.

Carolina Aniline & Extract Co., Inc., Charlotte, N. C.

City Chemical Corp., New York, N. Y.

Dow Chemical Corp., New York, N. Y.

Dow Chemical Corp., Nilland, Mich.

Evis Mfg. Co., Chicago, Ill. (Physical)

Garman Co., Inc., St. Louis, Mo.

Lester Laboratories, Inc., Atlanta, Ga.

Metropolitan Refining Co., Inc., Long Island City, N. Y.

Morheat Corp., Cincinnati, O.

North American Mogul Products Co., Cleveland, O.

Oakite Products, Inc., New York, N. Y.

Packard Water Conditioners, Inc., Jacksonville, Fla.

Permutit Co., Div. of Pfaudler Permutit Inc., New York N. Y.

Schaefer Chemical Products Co., Saginaw, Mich.

Skuttle Mfg. Co., Milford, Mich. (For humidifiers)

Stiles Karlsonite Corp., Waukegan, Ill.

Virginia Smelting Co., West Norfolk, Va.

#### CONDUCTOR PIPE AND FITTINGS

See Pipe and Fittings, Conductor

## CONNECTIONS, DUCT, FLEXIBLE

Airo Industries, Los Angeles, Calif. (Canvas, asbestos, neo-prene)
Cain Mfg. Inc., Birmingham, Ala.
Champion Furnace Pipe Co., Peoria, Ill.
Duro-Dyne Corp., New Hyde Park, L. I., N. Y.
Elgen Mfg. Corp., Long Island City, N. Y. (Neoprene)
Nicolet Industries, Inc., Florham Park, N. J.
St. Clair Rubber Co., Detroit, Mich. (Fiberglass)
United States Rubber Co., New York, N. Y. (Asbestos, canvas)
Ventfabrics, Inc., Chicago, Ill. (Fabric)
Wilson, Inc., Grant, Chicago, Ill. (Asbestos, canvas, neoprene, metal and fabrics)

## CONNECTORS, METAL, FOR METAL DUCTS

Acme Furnace Fitting Co., Chicago, Ill.

Acme Mfg. Co., Philadelphia, Pa.

Armstrong Fittings Co., Des Moines, Ia.

Carolina Blower Co., Inc., Greensboro, N. C.

Champion Furnace Pipe Co., Peoria, Ill.

Corbman Bros., Inc., Philadelphia, Pa.

Inland Steel Products Co., Milwaukee, Wis.

Ralph Mfg. Co., Inc., Wadsworth, O.

Snappy Inc., Detroit Lakes, Minn.

#### CONSTANT LEVEL FLOAT VALVES

See Controls, Fuel Oil Metering

### CONTROL PANELS

See Boards and Panels, Control

#### CONTROL, SAFETY, GAS FLOW

Dewey Gas Furnace Co., Detroit, Mich. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif. Robertshaw-Fulton Controls Co., Richmond, Va. White-Rodgers Co., St. Louis, Mo.

## CONTROL SWITCHES FOR SHEET METAL WORKING EQUIPMENT

American Actuator Corp., Stamford, Conn. Arrow-Hart & Hegeman Electric Co., Hartford, Conn. Robertshaw-Fulton Controls Co., Richmond, Va.

### CONTROLS, BLOWER, AIR

Morrison Products, Inc., Cleveland, O.

## CONTROLS, BLOWER, SPEED CHANGING

Airgard Mfg. Co., Chicago, Ill. Ammerman Co., Inc., Stillwater, Minn. Ballastran Corp., Ft. Wayne, Ind. National Modulation Co., St. Paul, Minn. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, COMBINATION FAN AND LIMIT, LINE OR LOW VOLTAGE

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.

Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif. Cemco Controls Co., Columbus, O. Columbus Electric Mfg. Co., Columbus, O.

Cook Electric Co., Chicago, Ill.

Detroit Controls Div. of American-Standard, Detroit, Mich.

General Controls Co., Glendale, Calif.

General Electric Co., Appliance Control Dept., Morrison, Ill.

Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.

Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va.

Signet Controls, Portland, Ore.

Therm-O-Disc, Inc., Mansfield, Ohio. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, COMBUSTION, LINE OR LOW VOLTAGE

Barber-Colman Co., Rockford, Ill. Bristol Co., Waterbury, Conn. Cam-StaT Inc., Los Angeles, Calif. Combustion Control Corp., Cambridge, Mass.
Crown Controls Co., Inc., New Bremen, Ohio.
Delco Appliance Div., General Motors Corp., Rochester, N. Y. Delco Appliance Div., General Motors Corp., Rochester, N. S. Eclipse Fuel Engineering Co., Rockford, Ill.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Hays Corp., Michigan City, Ind.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. Shallcross Controls, Inc., Markesan, Wis. Signet Controls, Portland, Ore. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, DRAFT DAMPER, ELECTRICAL

Au-Temp-Co Corp., New York, N. Y. Au-Temp-Co Corp., New York, N. Y.
Automatic Temperature Control Co., Inc., Philadelphia, Pa.
Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, Ohio.
Defender Instrument & Regulator Co., Boody, Ill.
General Controls Co., Glendale, Calif.
Heat-Timer Corp., New York, N. Y.
Kol-Master Corp., Oregon, Ill.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va.
Square D Co., Lexington, Ky. Square D Co., Lexington, Ky.

White Mfg. Co., St. Paul, Minn.

White-Rodgers Co., St. Louis, Mo.

Young Regulator Co., Cleveland, O.

## CONTROLS, DUCT DAMPER, MODULATING OR PROPORTIONING

Barber-Colman Co., Rockford, Ill. Bristol Co., Waterbury, Conn. Cam-StaT Inc., Los Angeles, Calif. Crown Controls Co., Inc., New Bremen, O. Econo Products Co., Div. of Viking Instruments, East Haddam, Conn General Controls Co., Glendale, Calif. Hays Corp., Michigan City, Ind. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. White-Rodgers Co., St. Louis, Mo.

#### CONTROLS, DUCT DAMPER, TWO POSITION

Au-Temp-Co Corp., New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Bristol Co., Waterbury, Conn.
Crown Controls Co., Inc., New Bremen, Ohio.
General Controls Co., Glendale, Calif.
Heat-Timer Corp., New York, N. Y.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Morrison Products, Inc., Cleveland, O.
Robertshaw-Fulton Controls Co., Richmond, Va. Robertshaw-Fulton Controls Co., Richmond, Va. Young Regulator Co., Cleveland, O.

### CONTROLS, FAN

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Allen-Bradley Co., Milwaukee, Wis. Automatic Devices Div. of American Machine & Metals, Inc., Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.

Barber-Colman Co., Rockford, Ill.

Cam-Stat, Inc., Div. Paul Henry Co., Los Angeles, Calif.

Clark Controller Co., Cleveland, Ohio.

Detroit Controls Div. of American-Standard, Detroit, Mich.

General Controls Co., Glendale, Calif.

General Electric Co., Appliance Control Dept., Morrison, Ill.

Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.

McCorkle Co., D. H., Berkeley Calif. Beach, Calif.
McCorkle Co., D. H., Berkeley, Calif.
McLarty Systems, Battle Creek, Mich.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va. Signet Controls, Portland, Ore.
Spencer Thermostat Div. Metals & Controls Corp., Attleboro, Mass. Thermo-O-Disc, Inc., Mansfield, O. United Electric Controls Co., Watertown, Mass. White-Rodgers Co., St. Louis, Mo.

### CONTROLS, FUEL OIL, METERING VALVES, **GRAVITY FLOW**

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. (Electric and manual) Detroit Controls Div. of American-Standard, Detroit, Mich. (Electric and manual) General Controls Co., Glendale, Calif. Montgomery Products Co., Lansing, Mich.

# CONTROLS, GAS, COMBINATION (PRESSURE REGULATOR, SAFETY PILOT, SOLENOID VALVE AND MAIN LINE SHUTOFF VALVE)

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. General Controls Co., Glendale, Calif. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif. McQuay-Norris Mfg. Co., St. Louis, Mo. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. Robertshaw-Fulton Controls Co., Richmond, Va. Thermac Co., Corona, Calif. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, HUMIDISTAT

Abbeon Supply Co., Jamaica, N. Y.
American Instrument Co., Inc., Silver Spring, Md.
Bahnson Co., Winston-Salem, N. C.
Barber-Colman Co., Rockford, Ill.
Bendix International Div., Bendix Aviation Corp., Export Sales & Service, New York, N. Y.
Bristol Co., Waterbury, Conn.
Pries Instrument Div., Bendix Aviation Corp., Baltimore, Md.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
H-B Instrument Co., Inc., Philadelphia, Pa.
Johnson Service Co., Milwaukee, Wis.
Maid-O-Mist, Inc., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Powers Regulator Co., Skokie, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Walton Laboratories, Inc., Irvington, N. J.

### CONTROLS, LIMIT, LINE OR LOW VOLTAGE

Allen-Bradley Co., Milwaukee, Wis. Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, III. Western Springs, III.

Barber-Colman Co., Rockford, Ill.

Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.

Crown Controls Co., Inc., New Bremen, Ohio.

Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.

Detroit Controls Div. of American-Standard, Detroit, Mich. General Controls Co., Glendale, Calif. General Electric Co., Appliance Control Dept., Morrison, Ill. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif. McCorkle Co., D. H., Berkeley, Calif. Mercoid Corp., Chicago, Ill. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. Robertshaw-Fulton Controls Co., Richmond, Va. Signet Controls, Portland, Ore Spencer Thermostat Div. Metals & Controls Corp., Attleboro. Mass. Therm-O-Disc, Inc., Mansfield, Ohio. United Electric Controls Co., Watertown, Mass. Westinghouse Electric Corp., Pittsburgh, Pa. White-Rodgers Co., St. Louis, Mo.

#### CONTROLS, PILOT, GAS BURNER

American Control Co., Compton, Calif.
Baso Inc., Milwaukee, Wis.
Continental Instrument Co., Cleveland, Ohio.
Drying Systems Co., Chicago, Ill.
Eclipse Fuel Engineering Co., Rockford, Ill.
General Controls Co., Glendale, Calif.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long
Beach, Calif.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Modern Lighters, Inc., Northville, Mich.
Penn Controls, Inc., Goshen, Ind.
Roberts-Gordon Appliance Corp., Buffalo, N. Y.
Robertshaw-Fulton Controls Co., Richmond, Va.
Titan Valve & Mig. Co., Cleveland, Ohio.
White-Rodgers Co., St. Louis, Mo.
Zink Co., John, Tulsa Okla

#### CONTROLS, PRESSURE, REFRIGERATING

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Allen-Bradley Co., Milwaukee, Wis. Automatic Control Co., St. Paul, Minn. Barber-Colman Co., Rockford, Ill. Barksdale Valves, Łos Angeles, Calif. Cook Electric Co., Chicago, Ill. Detroit Controls Div. of American-Standard, Detroit, Mich. Marsh Corp., Jas. P., Skokie, Ill. Mercoid Corp., Chicago, Ill. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. Powers Regulator Co., Skokie, Ill. Ranco Inc., Columbus, Ohio. Soreng Div., Controls Co. of America, Schiller Park, Ill.

United States Gauge Div., American Machine & Metals, Inc., Sellersville, Pa. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, RELAYS, ELECTRICAL

AEMCo., Inc., Mankato, Minn.
Allen-Bradley Co., Milwaukee, Wis.
American Instrument Co., Inc., Silver Spring, Md.
Arrow-Hart & Hegeman Electric Co., Hartford, Conn.
Automatic Switch Co., Florham Park, N. J.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
Barber-Colman Co., Rockford, Ill.
Baso Inc., Milwaukee, Wis.
Better Engineered Controls, Los Angeles, Calif.
Clark Controller Co., Cleveland, Ohio.
Cramer Co., Inc., R. W., Centerbrook, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept. Morrison, Ill.
Guardian Electric Mfg. Co., Chicago, Ill.
Hart Mfg. Co., Hartford, Conn.
H-B Instrument Co., Philadelphia, Pa.
McCorkle Co., D. H., Berkeley, Calif.
Mercoid Corp., Chicago, Ill
Metals & Controls Corp., Spencer Div., Attleboro, Mass.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Monitor Controller, Rockland, Mass.
Penn Controls, Inc., Goshen, Ind.
Philadelphia Thermometer & Instrument Co., Philadelphia, Pa.
Reynolds Electric Co., River Grove, Ill.
Soreng Div., Controls Co. of America, Schiller Park, Ill.
Square D Co., Lexington, Ky.
Square D Co., Lexington, Ky.
Square D Co., Lexington, Ky.
Ward Leonard Electric Corp., Pittsburgh, Pa.
White-Rodgers Co., St. Louis, Mo.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Zenith Electric Co., Chicago, Ill.

## CONTROLS, SAFETY ALARM

See Alarms, Heating Plant Failure

### CONTROLS, SWITCHES, MAGNETIC

ACEC Electric Corp., New York, N. Y.
Allen-Bradley Co., Milwaukee, Wis.
Arrow-Hart & Hegeman Electric Co., Hartford, Conn.
Automatic Electric Mfg. Co., Mankato, Minn.
Automatic Switch Co., Florham Park, N. J.
Barber-Colman Co., Rockford, Ill.
Clark Controller Co., Cleveland, Ohio.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detroit Controls Corp., Detroit, Mich.
Electric Controller & Mfg. Co., Cleveland, Ohio.
Furnas Electric Co., Batavia, Ill.
General Controls Co., Gendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Guardian Electric Mfg. Co., Chicago, Ill.
H-B Instrument Co., Philadelphia, Pa.
Hart Mfg. Co., Hartford, Conn.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Monitor Controller, Rockland, Mass.
Palmer Electric Co., Chicago, Ill.
Penn Controls, Inc., Goshen, Ind.
Soreng Div., Controls Co. of America, Schiller Park, Ill.
Square D Co., Lexington, Ky.
Square D Co., Lexington, Ky.
Ward Leonard Electric Corp., Pittsburgh, Pa.
White-Rodgers Co., St. Louis, Mo.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Zenith Electric Co., Chicago, Ill.

## CONTROLS, SWITCHES, MANUAL

ACEC Electric Corp., New York, N. Y. Allen-Bradley Co., Milwaukee, Wis. Allis-Chalmers Mfg. Co., Milwaukee, Wis. Arrow-Hart & Hegeman Electric Co., Hartford, Conn. Barber-Colman Co., Rockford, Ill.
Better Engineered Controls, Los Angeles, Calif.
Clark Controller Co., Cleveland, Ohio.
Cutler-Hammer, Inc., Milwaukee, Wis.
Furnas Electric Co., Batavia, Ill.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Hart Mfg. Co., Hartford, Conn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Soreng Div., Controls Co. of America, Schiller Park, Iil.
Square D Co., Lexington, Ky.
Square D Co., Indus. Controller Div., Milwaukee, Wis.
Westinghouse Electric Corp., Pittsburgh, Pa.
Wiegand Co., Edwin L., Pittsburgh, Pa.

### CONTROLS, SWITCHES, TIME

AEMCo., Inc., Mankato, Minn.
Allen-Bradley Co., Milwaukee, Wis.
Au-Temp-Co Corp., New York, N. Y.
Au-Temp-Co Corp., New York, N. Y.
Automatic Devices Div. of American Machine & Metals, Inc.,
Western Springs, Ill.
Automatic Switch Co., Florham Park, N. J.
Automatic Timing & Controls, Inc., King of Prussia, Pa.
Barber-Colman Co., Rockford, Ill.
Bristol Co., Waterbury, Conn.
Clark Controller Co., Cleveland, Ohio.
Cramer Controls Corp., Centerbrook, Conn.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
General Electric Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Clock and Timer Dept., Ashland, Mass.
International Register Co., Chicago, Ill.
Miller-Harris Instrument Co., Milwaukee, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Paragon Electric Co., Two Rivers, Wis.
Photoswitch Div., Electronics Corp. of America, Cambridge, Mass.
R. B. Enterprises, Inc., Detroit, Mich.
Reliance Automatic Lighting Co., Racine, Wis.
Reynolds Electric Co., River Grove, Ill.
Rhodes, Inc., M. H., Hartford, Conn.
Soreng Div., Controls Co. of America, Schiller Park, Ill.
Telechron, Inc., Ashland, Mass.
Tork Time Controls Inc., Mt. Vernon, N. Y.
Westinghouse Electric Corp., Pittsburgh, Pa.
West Wind Corp., Seattle, Wash.
White-Rodgers Co., Chicago, Ill.

## CONTROLS, THERMOSTATIC, HEAT PUMP

Ranco Inc., Columbus, O.

## CONTROLS, THERMOSTATS, CLOCK, DAY AND NIGHT

Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.

Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, Ohio.
Detroit Controls Div. of American-Standard, Detroit, Mich. General Controls Co., Glendale, Calif.
Heat-Timer Corp., New York, N. Y.
Miller-Harris Instrument Co., Milwaukee, Wis.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Sarcotherm Controls, Inc., New York, N. Y.
Tork Time Controls Inc., Mt. Vernon, N. Y.

## CONTROLS, THERMOSTATS, COMBINATION HEATING AND COOLING

Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.

Barber-Colman Co., Rockford, Ill.
Carrier Corp., Syracuse, N. Y.

Carrier Corp., Syracuse, N. Y.
Detroit Controls Div. of American-Standard, Detroit, Mich.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.

General Controls Co., Glendale, Calif. General Electric Co., Appliance Control Dept., Morrison, Ill. Metals & Controls Corp., Versailles Products Div., Versailles, Ky.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Powers Regulator Co., Skokie, Ill.
Roberson Inc., Mountlake Terrace, Wash.
Robertshaw-Fulton Controls Co., Richmond, Va.
White-Rodgers Co., St. Louis, Mo.

## CONTROLS, THERMOSTATS, DOMESTIC WATER HEATER

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. American Control Co., Compton, Calif.
American Instrument Co., Inc., Silver Spring, Md.
Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif.
Deutsch Controls Corp., Los Angeles, Calif.
Deutsch Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
General Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
Hair Mig Co., Hartford, Conn.
Hynes & Cox Electric Corp., Burnt Hills, N. Y.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Modern Controls Corp., Centerline, Mich.
Penn Controls, Inc., Goshen, Ind.
Powers Regulator Co., Skokie, Ill.
Robertshaw-Fulton Controls Co., Richmond Va.
Therm-O-Disc, Inc., Mansfeld, Ohio.
Titan Valve & Mfg. Co., Cleveland, Ohio.
Westinghouse Electric Corp., Pusburgh, Pa.

## CONTROLS, THERMOSTATS, THETRIC RESISTANCE HEATING

Automatic Timing & Controls, Inc., King of Prussia, Pa.
Berko Electric Mfg. Corp., Queens Village, N. Y.
Barber-Colman Co., Rockford, Ill.
Cavalier Corp., Electric Heating Div., Chattanooga, Tenn.
Ceilheat, Inc., Knoxville, Tenn.
Emerson Electric Mfg. Co., St. Louis, Mo.
Everwarm, Inc., Knoxville, Tenn.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.
General Controls Co., Glendale, Calif.
General Electric Co., Wiring Devices Dept., Providence, R. I.
Mears Electric Controls, Swan Island, Portland, Ore.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Radiant Electric Heat Co., Springfield, Ill.
Roberson Inc., Mountlake Terrace, Wash.
Robertshaw-Fulton Controls Co., Richmond, Va.
Sunwarm, Inc., Kingsport, Tenn.
Swan Mfg. Co., Vancouver, Wash.
White-Rodgers Co., St. Louis, Mo.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Wilcolator Co., Elizabeth, N. J.

## CONTROLS, THERMOSTATS, ELECTRONIC

Barber-Colman Co., Rockford, Ill. Penn Controls, Inc., Goshen, Ind.

Penn Controls, Inc., Goshen, Ind.

## CONTROLS, THERMOSTATS, HEAT ACCELERATED OR ANTICIPATING

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Barber-Colman Co., Rockford, Ill.
Cam-StaT Inc., Div. Paul Henry Co., Los Angeles, Calif.
Crown Controls Co., Inc., New Bremen, Ohio.
Detroit Controls Div. of American-Standard, Detroit, Mich.
Fulton Sylphon Div. Robertshaw-Fulton Controls Co., Knoxville, Tenn.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
H-B Instrument Co., Philadelphia, Pa.
McCorkle Co., D. H., Berkeley, Calif. (Anticipating)
Metals & Controls Corp., Versailles Products Div., Versailles, Ky.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Robertshaw-Fulton Controls Co., Richmond, Va. Sarotherm Controls, Inc., New York, N. Y. Signet Controls, Portland, Ore. White-Rodgers Co., St. Louis, Mo.

## CONTROLS, THERMOSTATS, LINE OR LOW VOLTAGE

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Allen-Bradley Co., Milwaukee, Wis. American Instrument Co., Inc., Silver Spring, Md. Barber-Colman Co., Rockford, Ill. Baso Inc., Milwaukee, Wis. Cam-Stat Inc., Div. Paul Henry Co., Los Angeles, Calif. Crown Controls Co., Inc., New Bremen, Ohio. Delco Appliance Div., General Motors Corp., Rochester, N. Y. Detroit Controls Div. of American-Standard, Detroit, Mich. Fenwal Inc., Ashland, Mass Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn. General Controls Co., Glendale, Calif. General Electric Co., Appliance Control Dept., Morrison, Ill. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
H-B Instrument Co., Philadelphia, Pa. Hart Mfg. Co., Hartford, Conn. McCorkle Co., D. H., Berkeley, Calif. Mercoid Corp., Chicago, Ill. Metals & Controls Corp., Versailles Products Div., Versailles, Ky. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. National Controls, Inc., Newton Center, Mass. Penn Controls, Inc., Newton Center, Mass. Penn Controls, Inc., Goshen, Ind. Roberson Inc., Mountlake Terrace, Wash. Robertshaw-Fulton Controls Co., Richmond, Va. Sarco Co., Inc., New York, N. Y. Sarcotherm Controls, Inc., Meny York, N. Y. Sarcotherm Controls, Inc., Mansfield, Ohio. United Electric Controls Co., Watertown, Mass. Westinghouse Electric Corp., Pittsburgh, Pa. White-Rodgers Co., St. Louis, Mo. Wiegand Co., Edwin L., Pittsburgh, Pa.

## CONTROLS, THERMOSTATS, MODULATING OR PROPORTIONING

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Atlas Valve Co., Newark, N. J.
Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.
Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, O.
Defender Instrument & Regulator Co., Boody, Ill.
Detroit Controls Div. of American-Standard, Detroit, Mich. Penwal, Inc., Ashland, Mass.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.
General Controls Co., Glendale, Calif.
Johnson Service Co., Milwaukee, Wis.
Minnespolis-Honeywell Regulator Co., Minneapolis, Minn.
Payne Beverly Mfg. Co., Beverly Hills, Calif.
Powers Regulator Co., Skokie, Ill.
Robertshaw-Fulton Controls Co., Richmond, Va.
White-Rodgers Co., St. Louis, Mo.

## CONTROLS, THERMOSTATS, TWO STAGE, FOR COOLING

Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill.
Barber-Colman Co., Rockford, Ill.
General Controls Co., Glendale, Calif.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Roberson Inc., Mountlake Terrace, Wash.
United Electric Controls Co., Watertown, Mass.

## CONTROLS, THERMOSTATS, WEATHER COMPENSATING

Au-Temp-Co Corp., New York, N. Y.
Automatic Devices Div. of American Machine & Metals, Inc.,
Western Springs, Ill.
Barber-Colman Co., Rockford, Ill.

Detroit Blower Div. of American-Standard, Franklin Park, Ill. General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill. Heat-Timer Corp., New York, N. Y.
Illinois Engineering Co., Chicago, Ill.
Johnson Service Co., Milwaukee, Wis.
McLarty Systems, Battle Creek, Mich.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Powers Regulator Co., Skokie, Ill.
Sarcotherm Controls, Inc., New York, N. Y.
Sullivan Valve & Engineering Co., Butte, Mont.
United Electric Controls Co., Watertown, Mass.
White-Rodgers Co., St. Louis, Mo.

## **CONTROL SYSTEMS, ACCESSORIES**

Terminals, terminal blocks, connectors, ignition cable, thermestat cable, etc.

Allen-Bradley Co., Milwaukee, Wis. (Terminal blocks)

Barber-Colman Co., Rockford, Ill.

Buchanan Electric Products Corp., Hillside, N. J. (Terminal blocks, connectors)

Plastic Wire & Cable Corp., Jewett City, Conn. (Thermostat cable)

## CONTROL SYSTEMS, FUEL MODULATING

Maxitrol Co., Detroit, Mich. White-Rodgers Co., St. Louis, Mo.

### CONTROL SYSTEM KITS, FLAME FAILURE

American District Telegraph Co., New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Bristol Co., The, Waterbury, Conn.
Canton Stoker Corp., Canton, Ohio.
Combustion Control Div., Electronics Corp. of America, Cambridge, Mass.
Eclipse Fuel Engineering Co., Rockford, Ill.
Electronics Div., Iron Fireman Mfg. Co., Portland, Ore.
Fuelguard Co., Dallas, Texas.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Mercoid Corp., Chicago, Ill.
Mettler Co., Inc., The, Los Angeles, Calif.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.
White-Rodgers Co., St. Louis, Mo.

## CONTROL SYSTEM KITS, GAS BURNER,

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Detroit Controls Div. of American-Standard, Detroit, Mich. Eclipse Fuel Engineering Co., Rockford, Ill. General Controls Co., Glendale, Calif. Mettler Co., Inc., Los Angeles, Calif. Minneapolis-Honeywell Regulstor Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. R. B. Enterprises, Inc., Detroit, Mich. Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill. White-Rodgers Co., St. Louis, Mo.

## CONTROL SYSTEM KITS, GRAVITY FURNACE, HAND-FIRED, COMPLETE ASSEMBLY

Barber-Colman Co., Rockford, Ill.
Bearlee Products Co., Green Bay, Wis.
Crown Controls Co., New Bremen, Ohio.
Defender Instrument & Regulator Co., Boody, Ill.
General Controls Co., Glendale, Calif.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.

## CONTROL SYSTEM KITS, HEATING, VENTILATING, AND AIR CONDITIONING, ELECTRICAL

Barber-Colman Co., Rockford, Ill. Better Engineered Controls, Los Angeles, Calif. Clark Controller Co., Cleveland, Ohio. Crise Controls Div., Acro Mfg. Co., Columbus, Ohio.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Mercoid Corp., Chicago, Ill.
Midwest Automatic Control Co., Des Moines, Iowa.
Minieapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
White-Rodgers Co., St. Louis, Mo.

## CONTROL SYSTEM KITS, OIL BURNER,

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Detroit Controls Div. of American-Standard, Detroit, Mich. General Controls Co., Glendale, Calif. General Electric Co., Appliance Control Dept., Morrison, Ill. Heat-Timer Corp., New York, N. Y. Mercoid Corp., Chicago, Ill. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Penn Controls, Inc., Goshen, Ind. Shallcross Controls Inc., Markesan, Wis. Wheelco Instruments Div., Barber-Coleman Co., Rockford, Ill. White-Rodgers Co., St. Louis, Mo.

## CONTROL SYSTEM KITS, STOKER, COMPLETE

Defender Instrument & Regulator Co., Boody, Ill.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Heat-Timer Corp., New York, N. Y.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Palmer Electric Co., Chicago, Ill.
Shallcross Controls Co., Inc., Markesan, Wis.

## CONTROL SYSTEM KITS, WINTER AIR CONDITION-ING FURNACE, HAND FIRED, COMPLETE ASSEMBLY

Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, Ohio.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
White-Rodgers Co., St. Louis, Mo.

## CONTROL SYSTEM KITS, ZONE, COMPLETE ASSEMBLY

Au-Temp-Co Corp., New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Better Engineered Controls, Los Angeles, Calif.
Econo Products Co., Div. of Viking Instruments, East Haddam, Conn.
General Controls Co., Glendale, Calif.
General Electric Co., Appliance Control Dept., Morrison, Ill.
Heat-Timer Corp., New York, N. Y.
Johnson Service Co., Milwaukee, Wis.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
White-Rodgers Co., St. Louis, Mo.
Young Regulator Co., Cleveland, O.

## COOLING COILS

See Colls, Cooling

## COOLING TOWERS

See Towers, Cooling

## COOLING UNITS

See Unitary Air Conditioners

#### COPPER PIPE

See Tubing, Copper

#### COPPER SHEETS

See Sheets, Motel, Conner

## COPPER TUBE FITTINGS

See Fittings, Copper Tube

## COUPLINGS, TUBING, REFRIGERANT, RUPTURE

For Installing Factory Charged Refrigeration Equipment

Aeroquip Corp., Marman Div., Los Angeles, Calif. Superior Valve and Fittings Co., Pittsburgh, Pa. Titeflex, Inc., Springfield, Mass.

## COVERS, WINDOW AIR CONDITIONER

See Protectors, Window Air Conditioner

## CRAWLSPACE VENTILATORS

See Ventilators, Foundation

#### CRIMPING MACHINES

See Machines, Crimping

### CROP DRYERS

See Dryers, Crop, Furnace Type

#### **CURBS, ROOF VENTILATOR**

Cook Co., Loren, Berea, O. Penn Ventilator Co., Inc., Philadelphia, Pa. Van Noorden Co., E., Boston, Mass.

## **CURTAIN WALL PANELS**

See Panels, Curtain Wall

## DAMPER ASSEMBLIES FOR FURNACE PLENUMS

Lennox Industries Inc., Marshalltown, Ia. Rheem Mfg. Co., Chicago, Ill. Ryniker Steel Products Co., Billings, Mont. Waterman-Waterbury Co., Minneapolis, Minn.

## DAMPER, DUCT, REGULATOR SETS

See Regulators, Duct Damper Sets

#### DAMPER HARDWARE

See Hardware, Damper

## DAMPER LINKAGE SETS

See Sets, Damper Linkage

## DAMPER MOTORS

See Controls, Motors

### DAMPERS, BACK DRAFT

See Louvers and Shutters

## DAMPERS, DIFFUSER

Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air Distribution Products Co., Los Angeles, Calif.
Air-Factors, Inc., Monrovia, Calif.
American Gas Co., Cleveland, O.
Anemostat Corp. of America, New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Gallaher Co., Omaha, Nebr.
General Air Products Corp., Cedar Grove, N. J.
Hart & Cooley Mfg. Co., Holland, Mich.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lima Register Co., Lima, O.
Smith Co., J. B., Philadelphia, Pa.
Titus Mfg. Corp., Waterloo, Ia.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.
United States Register Co., Battle Creek, Mich.
United States Register Corp., Tuckahoe, N. Y.

## DAMPERS, DRAFT, BAROMETRIC

Appliance Div., Motor Wheel Corp., Lansing, Mich. Boston Machine Works Co., Lynn, Mass. Cole-Sewell Engineering Co., St. Paul, Minn. Combustion Equipment Co., Moline, Ill. Field Control Div., H. D. Conkey & Co., Mendota, Ill. Heaterafters Manufacturers, Baileys Harbor, Wis. Hotstream Heater Co., Cleveland, Ohio. Juniper Elbow Co., Inc., Middle Village, L. I., N. Y. Lima Register Co., Lima, O. Mutual Mfg. Co., Flushing, N. Y. Preferred Utilities Mfg. Corp., New York, N. Y. Simplex Mfg. Co., Fond du Lac, Wis. Steinen Mfg. Co., Wm., Newark, N. J. Walker Mfg. & Sales Corp., St. Joseph, Mo. Windmaster Div. of Lima Register Co., Lima, O.

## DAMPERS, DRAFT, FIREPLACE

Adams Co., The, Dubuque, Ia.
Bennett-Ireland, Inc., Norwich, N. Y.
Donley Bros. Co., Cleveland, O.
Hohmann & Barnard, Inc., New York, N. Y.
Inland Steel Products Co., Milwaukee, Wis.
Majestic Co., Inc., Huntington, Ind.
Vega Industries, Inc., Syracuse, N. Y.

## DAMPERS, DUCT

A-J Mfg. Co., Kansas City, Mo.
Acme Mfg. Co., Philadelphia, Pa.
Air Conditioning Products Co., Detroit, Mich.
Air-Factors, Inc., Monrovia, Calif.
Air-Path Products Co., Baltimore, Md.
Air & Refrigeration Corp., New York, N. Y.
American Warming & Ventilating Co., Toledo, O.
Anemostat Corp. of America, New York, N. Y.
Arex Co., Chicago, Ill.
Armstrong Fittings Co., Des Moines, Ia.
Berger Furnace Corp., Belle Vernon, Pa.
Carnes Corp., Verona, Wis.
Damp-Vent Co., Bettendorf, Ia.
Duro-Dyne Corp., Farmingdale, N. Y.
Elgen Mfg. Corp., Long Island City, N. Y.
Elgen Mfg. Corp., Long, Long, Long, Mich.
General Air Products Corp., Cedar Grove, N. J.
Hart & Cooley Mfg. Co., Holland, Mich.
Imperial Damper Co., New York, N. Y.
Inland Steel Products Co., Milwaukee, Wis.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Malco Products, Minneapolis, Minn.
Maple City Furnace Co., Monmouth, Ill.
Powers Regulator Co., Skokie, Ill.
Seelye Craftsmen, Minneapolis, Minn.
Senrac, Madison, Wis.

Snappy Inc., Detroit Lakes, Minn.
Thermotank, Inc., Detroit, Mich. (For high velocity systems)
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.
United Sheet Metal Co., Inc., Columbus, O.
United States Register Co., Battle Creek, Mich.
Waterloo Register Co., Inc., Waterloo, Iowa.
Williamson Co., The, Cincinnati, O.
Young Regulator Co., Cleveland, O.

## DAMPERS, FIRE (DUCT)

Air Conditioning Products Co., Detroit, Mich.
Air-Factors, Inc., Monrovia, Calif.
American Foundry & Furnace Co., Bloomington, Ill.
American Warming & Ventilating Co., Toledo, O.
Ammerman Co., Inc., Stillwater, Minn.
Arex Co., Chicago, Ill.
Imperial Damper Co., New York, N. Y.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Seelye Craftsmen, Minneapolis, Minn.
Senrac, Madison, Wis.
Shoemaker Mfg. Co., Seattle, Wash.
United Sheet Metal Co., Inc., Columbus, O.
Young Regulator Co., Cleveland, O.

## DAMPERS, SMOKE PIPE

Acme Mfg. Co., Philadelphia, Pa.
Adams Co., Dubuque, Iowa.
Char-Gale Mfg. Co., Anoka, Minn.
Corbman Bros., Inc., Philadelphia, Pa.
Eselgroth & Co., Roselle, N. J.
Henry Furnace Co., Medina, O.
Hotstream Heater Co., Cleveland, Ohio.
Howes-Woods Co., Cambridge, Mass.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Peerless Corp., Indianapolis, Ind.
Superior Metal Fabricating Co., Nilas, O.
United States Register Co., Battle Creek, Mich.
Walker Mfg. & Sales Corp., St. Joseph, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Williamson Co., The, Cincinnati, O.

## DAMPERS, STACK HEAD

Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Aireflo Furnace Pipe Co., Brighton, Mich.
American Warming & Ventilating Co., Toledo, O.
Champion Furnace Pipe Co., Peoria, Ill.
Corbman Bros., Inc., Philadelphia, Pa.
Excelsior Steel Furnace Co., Chicago, Ill.
J & J Sheet Metal Co., Van Dyke, Mich.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Superior Metal Fabricating Co., Niles, O.
Truscon Steel Co., Youngstown, Ohio.
Williamson Co., The, Cincinnati, O.

## DAMPERS, WARM AIR PIPE

Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Philadelphia, Pa.
Aireflo Furnace Pipe Co., Brighton, Mich.
Adams Co., Dubuque, Iowa.
Armstrong Fittings Co., Des Moines, Ia.
Buckeye Mfg. Inc., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Corbman Bros., Inc., Philadelphia, Pa.
Duro-Dyne Corp., Farmingdale, N. Y.
Excelsior Steel Furnace Co., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Henry Furnace Co., Medina, O.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Labeled Metal Products Corp., Broadview, Ill.
Lennox Industries Inc., Marshalltown, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.

Malco Products, Minneapolis, Minn.
Olsen Mfg. Co., The C. A., Elyria, O.
Peerless Corp., Indianapolis, Ind.
Ralph Mfg. Co., Inc., Wadsworth, Ohio.
Severson Mfg. & Supply Co., Milwaukee, Wis.
Standard Metal Fabricating Co., Omaha, Nebr.
Thor Metal Products Co., Inc., Syracuse, N. Y.
United States Register Co., Battle Creek, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.
Williamson Co., The, Cincinnati, O.
Young Regulator Co., Cleveland, O.

## DECKING, ROOF, METAL

Airtherm Mfg. Co., St. Louis, Mo.
Bowman Steel Corp., Pittsburgh, Pa.
Fenestra Inc., Detroit, Mich.
Inland Steel Products Co., Milwaukee, Wis.
Mahon Co., R. C., Detroit, Mich.
Penn Metal Co., Inc., Boston, Mass.
Plasteel Products Corp., Washington, Pa.
Republic Steel Corp., Cleveland, O.
Republic Steel Corp., Truscon Div., Youngstown, O.
Reynolds Metals Co., Richmond, Va.
Robertson Co., H. H., Pittsburgh, Pa.
United States Gypsum Co., Chicago, Ill.
Walker Supply & Mfg. Co., Ecorse, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.

### DEHUMIDIFIERS, ABSORPTION AND ADSORPTION

Air Conditioning Engineering Co., Cambridge, Mass.
Air and Refrigeration Corp., New York, N. Y.
Bryant Mfg. Co., Indianapolis, Ind. (Adsorption)
Carrier Corp., Syracuse, N. Y.
Coughlan Co., G. N., West Orange, N. J.
Desomatic Products, Inc., Falls Church, Va.
Dryomatic Corp., Alexandria, Va.
Floridin Co., Tallahassee, Fla.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Kaufman Co., H. J., Detroit, Mich. (Absorption)
Pittsburgh Lectrodryer Co., Pittsburgh, Pa.
Speco, Inc., Cleveland, O.
Tamms Industries Co., Chicago, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

## DEHUMIDIFIERS, REFRIGERATING TYPE, PORTABLE

Amana Refrigeration, Inc., Amana, Ia.
Berns Air King Corp., Chicago, Ill.
Blissfield Mfg. Co., Blissfield, Mich.
Carrier Corp., Syracuse, N. Y.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Dryomatic Corp., Alexandria, Va.
Ebco Mfg. Co., Columbus, Ohio.
Blectrovent Fan & Mfg. Co., Chicago, Ill.
Fedders-Quigan Corp., Maspeth. N. Y.
Frigidaire Div., General Motors Corp., Dayton, O.
Haertel Co., Walter, Minneapolis, Minn.
Heat Controller, Inc., Jackson, Mich.
Kauffman Air Conditioning Co., St. Louis, Mo.
Kelvinator Div., American Motors Corp., Detroit, Mich.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Remington Air Conditioning Div., Remington Corp., Auburn, N. Y.
Westinghouse Electric Corp., Refrigeration Specialties Div.,
Springfield, Mass.

## DEHYDRATORS, REFRIGERANT

A-P Controls Corp., Milwaukee, Wis.
Allin Mfg. Co., Chicago, Ill.
Ansul Chemical Co., Refrigeration Div., Marinette, Wis.
Eagle Chemical Co., Inc., Mobile, Ala.
Henry Valve Co., Melrose Park, Ill.
Highside Chemicals Inc., Clifton, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Kenmore Machine Products, Inc., Lyons, N. Y.
McIntire Co., The, Livingston, N. J.
Mueller Brass Co., Port Huron, Mich.
Refrigeration Research, Inc., Brighton, Mich.

Remco, Inc., Zelienople, Pa. Sporlan Valve Co., St. Louis, Mo. Superior Valve and Fittings Co., Pittsburgh, Pa. Wabash Corp., Chicago, Ill.

## DEODORIZERS, FUEL OIL

Tankit Co., Inc., Newark, N. I.

## DETECTORS, LEAK, REFRIGERANT

Airserco Mfg. Co., Pittsburgh, Pa.
Allin Mfg. Co., Chicago, Ill.
American Gas & Chemicals, Inc., Leak-Tec Div., New York, N. Y.
Bernz Co., Otto, Rochester, N. Y.
Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pittsburgh, Pa.
Chemetron Corp., Chicago, Ill.
Gates & Co., Inc., George W., Franklin Sq., L. I., N. Y.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Highside Chemicals Inc., Clifton, N. J.
Insto-Gas Corp., Detroit, Mich.
Justrite Mfg Co., Chicago, Ill.
Kidde Mfg. Co., Inc., Bloomfield, N. J.
Lenk Mfg. Co., Franklin, Ky.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Ould (USA) Ltd., John, Mt. Vernon, N. Y.
Turner Corp., Sycamore, Ill.
Vacuum-Electronic Engineering Co., New Hyde Park, N. Y.

#### DIES, PRESS BRAKE

(Also see Machines, Sheet Metal Working, Presses)

Bath Co., Cyril, Solon, O.
Cincinnati Shaper Co., Cincinnati, O.
Davis & Son Machine Works, Los Angeles, Calif.
Doelger & Kirsten, Inc., Milwaukee, Wis.
Dreis & Krump Mfg. Co., Chicago, Ill.
Fallsington Mfg. Co., Fallsington, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Punch Products Corp., Niagara Falls, N. Y.
Reiner & Campbell Co., Inc., Newark, N. J.
Service Machine Co., Inc., Eilizabeth, N. J.
Wales-Strippit Inc., Akron, N. Y.
Whitney Mfg. Co., W. A., Rockford, Ill.

## DIES, PUNCH PRESS

Davis & Son Machine Works, Los Angeles, Calif. Fallsington Mfg. Co., Fallsington, Pa. O'Neil-Irwin Mfg. Co., Lake City, Minn. Punch Products Corp., Niagara Falls, N. Y. Service Machine Co., Inc., Elizabeth, N. J. Tool Products Corp., North Tonawanda, N. Y. Wales-Strippit Inc., Akron, N. Y. Ward Machinery Co., Chicago, Ill.

## DIFFUSERS, AIR, BASEBOARD

A & A Register Co., Cleveland, O.
Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air-Factors, Inc., Monrovia, Calif.
American Diffuser Co., Cleveland, O.
Auer Register Co., Cleveland, O.
Carnes Corp., Verona, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Coleman Co., Inc., Wichita, Kans.
Crane Co., Chicago, Ill.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Fan-Air Co., Dowagiac, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
General Air Products Corp., Cedar Grove, N. J.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Gerwin Industries, Inc., Thermo-Base Div., Michigan City, Ind.
Gross-Aire Mfg. Co., St. Louis, Mo.

H & N Sheet Metal Fabricating Co., Inc., Deer Lodge, Mont. Hart & Cooley Mfg. Co., Holland, Mich.
Hayes Products Co., Portsmouth, Va.
Heating Assurance, Inc., Spokane, Wash.
Independent Register Co., Cleveland, O.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Kritzer Radiant Coils, Inc., Batavia, Ill.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lennox Industries Inc., Marshalltown, Ia.
Lima Register Co., Lima, Ohio.
Made-Rite Co., Inc., Newport, Ky.
Maurlee Co., Inc., Woodbury Hts., N. J.
Midco Register Corp., St. Paul, Minn.
Morrison Steel Products, Inc., Buffalo, N. Y.
National Grille & Register Co., Cleveland, O.
Patco Mfg. Co., Inc., Philadelphia, Pa.
Republic Products Co., Philadelphia, Pa.
Republic Products Co., Billings, Mont.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Steel City Furnace Co., Springdale, Pa.
Sundstrom Pressed Steel, Chicago, Ill.
Titus Mfg. Corp., Waterloo, Iowa.
United States Register Co., Battle Creek, Mich.
Vulcan Radiator Co., Hartford, Conn.
Wellcome Engineering Co., Del., Clarendon Hills, Ill.
Woodside Engineering Co., Franklin Park, Ill.
York-Shipley, Inc., York, Pa.

## DIFFUSERS, AIR, CEILING

A & A Register Co., Cleveland, Ohio.
Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air Distribution Products Co., Los Angeles, Calif.
Air-Factors, Inc., Monrovia, Calif.
Airguide Plastics Corp., Miami, Fla. (Nylon)
American Warming & Ventilating Co., Toledo, O.
Anemostat Corp. of America, New York, N. Y.
Arizona Maintenance Co., Tucson, Ariz.
Ashburn Supply Co., Culver City, Calif.
Auer Register Co., Cleveland, O.
Austin Engineering & Mfg. Co., Inc., Ysleta, Tex.
B-G Engineering & Mfg. Co., Inc., Ysleta, Tex.
B-G Engineering Co., Houston, Tex.
Barber-Colman Co., Rockford, Ill.
Carnes Corp., Verons, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Coleman Co., Inc., Wichita, Kans.
Connor Engineering Corp., Danbury, Conn.
Controlair Mfg. Co., Los Angeles, Calif.
Demuth & Sons, Inc., Charles, Mineola, L. I., N. Y.
Dry Mfg. Co., Winters, Tex.
Felter Co., John, Houston, Tex.
Gallaher Co., Omaha, Nebr.
General Air Products Corp., Cedar Grove, N. J.
Grant Air Products, Verona, N. J.
Hart & Cooley Mfg. Co., Holland, Mich.
Independent Register Co., Cleveland, O.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lenly Mfg. Co., Inc., Los Angeles, Calif.
Lima Register Co., Lima, Ohio.
Maurlee Co., Inc., Woodbury Hts., N. J.
Metal Industries, Inc., Clearwater, Fla.
Metal Mfg. Co., Fort Lauderdale, Fla.
Midoo Register Corp., St. Paul, Minn.
Pyle-National Co., Multi-Vent Div., Chicago, Ill.
Rhoads Engineering Corp., Culver City, Calif.
Shoemaker Mfg. Co., Seattle, Wash.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Thermotank, Inc., Detroit, Mich. (Plastic)
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.
Universal Diffuser Corp., Tuckahoe, N. Y.
United States Register Co., Battle Creek, Mich.

## DIFFUSERS, AIR, FLOOR

A & A Register Co., Cleveland, O. A-J Mfg. Co., Kansas City, Mo. Air Control Products, Inc., Coopersville, Mich. Air Devices, Inc., New York, N. Y. Air-Factors, Inc., Monrovia, Calif.
American Diffuser Co. Cleveland, O.
Auer Register Co., Cleveland, O.
Carnes Corp., Verona, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Coleman Co., Inc., Wichita, Kans.
Crane Co., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Independent Register Co., Cleveland, O.
Knowles Mushroom Ventilator Co., Upper Montclair, N. J.
(Mushroom)
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lenly Mfg. Co., Inc., Los Angeles, Calif.
Lennox Industries Inc., Marshalltown, Ia.
Lima Register Co., Lima, O.
Made-Rite Co., Inc., Newport, Ky.
Maurlee Co., Inc., Woodbury Hts., N. J.
Midco Register Corp., St. Paul, Minn.
Ritter Pattern & Casting Co., Inc., New York, N. Y. (Mushroom)
Rock Island Register Co., Rock Island, Ill.
Shoemaker Mfg. Co., Seattle, Wash.
Smith Co., J. B., Philadelphia, Pa.
United States Register Co., Battle Creek, Mich.
Universal Diffuser Corp., Tuckahoe, N. Y.

## DIFFUSERS, AIR, HIGH PRESSURE

Air Devices, Inc., New York, N. Y.
Anemostat Corp. of America, New York, N. Y.
Barbet-Colman Co., Rockford, Ill.
Connor Engineering Corp., Danbury, Conn.
Lima Register Co., Lima, O.
Midco Register Corp., St. Paul, Minn.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.
United States Register Co., Battle Creek, Mich.

## DIFFUSERS, AIR, LIGHTING FIXTURE COMBINATION

Air Devices, Inc., New York, N. Y.
Anemostat Corp. of America, New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Carnes Corp., Verona, Wis.
Connor Engineering Corp., Danbury, Conn.
Demuth & Sons, Inc., Charles, Mineola, L. I., N. Y.
Pyle-National Co., Multi-Vent Div., Chicago, Ill.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn.
Universal Diffuser Corp., Tuckahoe, N. Y.

## DIFFUSERS, AIR, WALL

A & A Register Co., Cleveland, O.

A-J Mfg. Co., Kansas City, Mo.
Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air Distribution Products Co., Los Angeles, Calif.
Air-Factors, Inc., Monrovia, Calif.
American Warming & Ventilating Co., Toledo, O.
Anemostat Corp. of America, New York, N. Y.
Auer Register Co., Cleveland, O.
Barber-Colman Co., Rockford, Ill.
Carnes Corp., Verona, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Coleman Co., Inc., Wichita, Kans.
Demuth & Sons, Inc., Charles, Mineola, L. I., N. Y.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Dry Mfg. Co., Winters, Tex.
General Air Products Corp., Cedar Grove, N. J.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Gentle-Flo Co., Malvern, Pa.
Hart & Cooley Mfg. Co., Holland, Mich.
Independent Register Co., Cleveland, O.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lennox Industries Inc., Marshalltown, Ia.
Lima Register Co., Lima, O.
Made-Rite Co., Inc., Newport, Ky.
Metal Industries, Inc., Clearwater, Fla.
Midco Register Cop., St. Paul, Minn.
Moncrief Furnace Co., Atlanta, Ga.
National Grille & Register Co., Cleveland, O.
Rock Island Register Co., Rock Island, Ill.

Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Steel City Furnace Corp., Springdale, Pa.
Titus Mfg. Corp., Waterloo, Ia.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn.
United States Register Co., Battle Creek, Mich.
Universal Diffuser Corp., Tuckahoe, N. Y.
Waterloo Register Co., Inc., Waterloo, Ia.

### DIFFUSERS, BASEBOARD, WITH ELECTRIC HEATING ELEMENT

Gerwin Industries, Inc., Thermo-Base Div., Michigan City, Ind. United States Register Co., Battle Creek, Mich.

## DIVERTERS, DRAFT, GAS-FIRED EQUIPMENT

Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa.
Armstrong Fittings Co., Des Moines, Ia.
Badger Furnace Pipe Co., Madison, Wis.
Banner Burner Co., Youngstown, Ohio.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Champion Furnace Pipe Co., Peoria, Ill.
Corbman Bros., Inc., Philadelphia, Pa.
Excelsior Steel Furnace Co., Chicago, Ill.
Famous Furnace Co., Cleveland, Ohio.
Finger, Joe, Cleveland, Ohio.
Higgins Metal Products Co., The, Swanton, O.
Hotstream Heater Co., Cleveland, Ohio.
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Labeled Metal Products Corp., Broadview, Ill.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Maurlee Co., Inc., Woodbury Hts., N. J.
Mirror Patented Stove Pipe Co., Hartford, Conn.
Tri-State Heating Supply, Inc., Fort Wayne, Ind.
Waverly Heating Supply, Inc., Fort Wayne, Ind.
Waverly Heating Supply Co., Beverly, Mass.
Wilder Mfg. Co., Niles, Ohio.
Williamson Co., The, Cincinnati, O.

## DOLLY, ROLLER, FOR HANDLING EQUIPMENT

Haaser Sales Co., Fremont, O.

## DOOR GRILLES

#### DOORS, METAL, ACCESS

Adams Co., The, Dubuque, Ia.
Air Control Products, Inc., Coopersville, Mich.
Air-Factors, Inc., Monrovia, Calif.
Ammerman Co., Inc., Stillwater, Minn.
Bahnson Co., Winston-Salem, N. C.
Carey Mfg. Co., Philip, Lockland, Cincinnati, O.
Hohmann & Barnard, Inc., New York, N. Y.
Inland Steel Products Co., Milwaukee, Wis.
Pettit & Sons Co., Inc., W. T., Youngstown, O.
United Sheet Metal Co., Inc., Columbus, O.
Valley Forge Metals Corp., Lansdale, Pa.
Ventfabrics, Inc., Chicago, Ill.

## DOORS, METAL, CLEANOUT

Adams Co., The, Dubuque, Ia. Donley Bros. Co., Cleveland, O. Hohmann & Barnard, Inc., New York, N. Y. Inland Steel Products Co., Milwaukee, Wis.

## DOORS, METAL, CLOTHES CHUTE

A & A Register Co., Cleveland, O. Air Control Products, Inc., Coopersville, Mich. Auer Register Co., Cleveland, O. Donley Bros. Co., Cleveland, O. Hart & Cooley Mfg. Co., Holland, Mich.

## DOORS, SAFETY, FOR FURNACES

Falz Mfg. Co., St. Paul, Minn. Leisur-Maid Mfg. Corp., Grand Rapids, Mich. Liberty Combustion Corp., Syracuse, N. Y.

# DOUBLE DUCT MIXING UNITS, SOUND AND VOLUME CONTROL, FOR DOUBLE DUCT HIGH VELOCITY AIR CONDITIONING SYSTEMS

See Units, Mixing, Sound and Volume Control, for Double Duct High Velocity Air Conditioning Systems

#### **DOUBLE SEAMING ROOFING MACHINES**

See Machines, Sheet Metal Working, Double Seaming, Roof

## DOWNSPOUTING AND FITTINGS

See Pipe and Fittings, Conductor

#### DRAFT BOOSTERS

See Boosters, Draft, Mechanical

#### DRAFT CONTROLS

See Dampers, Draft, Barometric

#### DRAFT DIVERTERS, GAS HEATER

See Diverters, Draft

## DRAFT GAGES

See Gages, Draft Indicating, Portable

#### DRAFT INDUCERS

See Boosters, Draft, Mechanical

## DRAFT REGULATORS

See Regulators, Furnace Draft, Mechanical; Dampers, Draft, Barometric; Controls, Motors, Draft Damper

## DRIERS AND STRAINERS, REFRIGERATION SYSTEM

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Detroit Controls Div. of American-Standard, Detroit, Mich. Henry Valve Co., Melrose Park, Ill. Imperial Brass Mfg. Co. Kenmore Machine Products, Inc., Lyons, N. Y. McIntire Co., Livingston, N. J. Mueller Brass Co., Port Huron, Mich. Remco, Inc., Zelienople, Pa. Sporlan Valve Co., St. Louis, Mo. Superior Valve and Fittings Co., Pittsburgh, Pa. Tube Manifold Corp., North Tonawanda, N. Y. Wabash Corp., Chicago, Ill.

## DRILLS, ELECTRIC AND PNEUMATIC, PORTABLE

Air-Speed Tool Co., Los Angeles, Calif. (Pneumatic)
Albertson & Co., Inc., Sioux City, Iowa. (Pneumatic and Electric)
Black & Decker Mfg. Co., Towson, Md. (Electric)
Chicago Pneumatic Tool Co., New York, N. Y. (Electric and Pneumatic)
Cummins Portable Tools, Div. of John Oster Mfg. Co., Mil-

waukee, Wis. (Electric)

Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa. (Electric)

Gardner-Denver Co., Quincy, Ill. (Pneumatic)

Ingersoll-Rand Co., New York, N. Y. (Pneumatic)

Krieg, Inc., Victor J., New York, N. Y.

Millers Falls Co., Greenfield, Mass. (Electric)

Milwaukee Electric Tool Corp., Milwaukee, Wis. (Electric)

Modern Mfg. Co., Inc., Willow Grove, Pa. (Electric and Pneumatic)

Portable Electric Tools, Inc., Chicago, Ill. (Electric & pneumatic)

Porter-Cable Machine Co., Syracuse, N. Y. (Electric)

Power Tools Corp., Cleveland, O. (Electric, concrete)

Remington Arms Co., Inc., Bridgeport, Conn. (Pneumatic)

Rotor Tool Co., Cleveland, Ohio. (Pneumatic)

Skil Corporation, Chicago, Ill. (Electric & pneumatic)

Small Motors, Inc., Chicago, Ill. (Electric)

Snap-on Tools Corp., Kenosha, Wis. (Electric)

Speedway Mfg. Co., Div. of Thor Power Tool Co., LaGrange Park, Ill.

Stanley Electric Tool Div., Stanley Works, New Britain, Conn.

Stanley Electric Tool Div., Stanley Works, New Britain, Conn. (Electric)
Stow Mfg. Co., Binghamton, N. Y. (Electric-flexible shaft)

Stow Mfg. Co., Binghamton, N. Y. (Electric-flexible shaft)
Superior Pneumatic & Mfg. Inc., Cleveland, O. (Pneumatic)
Super-Slugger Co., Bedford, O. (Electric)
Thor Power Tool Co., Aurora, Ill. (Electric & pneumatic)
Wen Products, Inc., Chicago, Ill. (Electric)
Wodack Electric Tool Corp., Chicago, Ill. (Electric)

#### DRIVE CLEATS

See Connectors, Metal

## DRYERS, CROP, FURNACE TYPE

Campbell Heating Co., Des Moines, Iowa. Clay Equipment Corp., Cedar Falls, Ia. Link-Belt Co., Chicago, Ill. National Heater Co., Inc., St. Paul, Minn. Refrigeration Research, Inc., Brighton, Mich. Siebring Mfg. Co., George, Ia. Zink Co., John, Tulsa, Okla.

## **DUCT ANCHORS**

See Anchors, Duct and Pipe

#### **DUCT FABRIC**

See Connections, Duct, Flexible

#### **DUCT FITTING HARDWARE**

See Hardware, Duct Fitting

## **DUCT FITTINGS**

Angles, Boots, Heads, Joints, Offsets, Toes, etc.

Acer & Whedon, Inc., Medina, N. Y.
Acme Furnace Fitting Co., Chicago, Ill.
Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa.
Aeroquip Corp., Marman Div., Los Angeles, Calif. (Adjustable joints)
Aireflo Furnace Pipe Co., Brighton, Mich.
Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.
American Metal Products, Los Angeles, Calif.
Armstrong Fittings Co., Des Moines, Ia.
Ashburn Supply Co., Culver City, Calif.
Badger Furnace Pipe Co., Madison, Wis.
Beetle Plastics Corp., Carl N., Fall River, Mass. (Plastic)
Bergstrom Mfg. Corp., Neenah, Wis.
Bieler & Son, Long Island City, N. Y. (Adjustable elbows)
Buckeye Mfg. Inc., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.

Char-Gale Mfg. Co., Anoka, Minn. Cincinnati Stamping & Furnace Co., Cincinnati, Ohio. Coleman Co., Inc., Wichita, Kans. Corbman Bros., Inc., Philadelphia, Pa. Crane Co., Chicago, Ill.
Creamer Industries, Inc., Maxwell Steel Div., Fort Worth, Tex.
Detroit Safety Furnace Pipe Co., Detroit, Mich. Duc-Pac Inc., East Longmeadow, Mass.
Du Verre, Inc., Buffalo, N. Y. (Plastic)
Eisbach, Albert N., Dubuque, Iowa. (Elbows)
Empire Stove Co., Belleville, III.
Enderle Inc., Ltd., Frank X., Los Angeles, Caiif. Excelsior Steel Furnace Co., Chicago, Ill. Felter Co., John, Houston, Tex. Francer Mig. & Supply Corp., East Milton, Mass.

Gary Steel Products Co., Gary, Ind.

Green Colonial Inc., Des Moines, Iowa.

Hawthorne Mig. Corp., Hawthorne, Pa.

Heil Process Equipment Corp., Cleveland, O.

Henry Furnace Co., Medina, Ohio.

Home Furnace Co., Holland, Mich.

Howes-Woods Co., Cambridge, Mass.

Hugert Mig. Co., Medina, Ohio.

Inland Steel Products Co., Milwaukee, Wis.

International Heater Co., Utica, N. Y.

J & J Sheet Metal Co., Van Dyke, Mich. (Elbows)

Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.

Keith Furnace Co., Des Moines, Iowa.

Krauser-Boyd, Inc., North Tonawanda, N. Y.

Labeled Metal Products Corp., Broadview, Ill.

La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.

(Elbows) Francer Mfg. & Supply Corp., East Milton, Mass. (Elbows) (Elbows)
Lennox Industries Inc., Marshalltown, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Lyman Co., H. B., Southampton, Mass.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Made-Rite Co., Inc., Newport, Ky.
Majestic Co., Inc., Huntington, Ind.
Marshall Furnace Co., Marshall, Mich.
Maurlee Co., Inc., Woodbury Hts., N. J.
Metal Fabricators, Inc., Charlotte, N. C.
Meyer & Bro. Co., F. Peoria, Ill.
Mitchell Metal Works, Mike, Kosciusko, Miss.
Modern Metals. Inc., Houston, Tex. Modern Metals, Inc., Houston, Tex. Moncrief Furnace Co., Atlanta, Ga. Montag Inc., Portland, Ore. Morrison Steel Products, Inc., Buffalo, N. Y. Northwest Metal Products, Inc., Seattle, Wash. Northwest Metal Products, Inc., Seattle, Wash.

Norwalk Air Conditioning Corp., South Norwalk, Conn.

Olsen Mfg. Co., The C. A., Elyria, O.

Peerless Corp., Indianapolis, Ind.

Penn Supply & Metal Corp., Philadelphia, Pa.

Perfection Furnace Pipe Co., Toledo, Ohio.

Premier Furnace Co., Dowagiac, Mich.

Quality Heating Supply Co., Cincinnati, O.

Ralph Mfg. Co., Inc., Wadsworth, Ohio.

Reeves Steel & Mfg. Co., Div., of Empire-Reeves Steel Corp.,

Dover, O. (Angles ellows) Dover, O. (Angles, elbows)
Roofing & Supply Co., Chattanooga, Tenn. Round Oak Co., Inc., Dowagiac, Mich.
Ryniker Steel Products Co., Billings, Mont.
St. Clair Metal Products Co., Cleveland, O.
Schecter Bros. Co., Philadelphia, Pa. Sioux Steel Co., Sioux Falls, S. D. Snappy Inc., Detroit Lakes, Minn. Standard Metal Fabricating Co., Omaha, Nebr. Steel City Furnace Corp., Springdale, Pa. Stratton & Terstegge Co., Louisville, Ky. Superior Metal Fabricating Co., Niles, O. Superior Products Co., Omaha, Nebr. Superior Safety Furnace Pipe Co., Detroit, Mich. Thor Metal Products Co., Inc., Syracuse, N. Y. Tiffin Art Metal Co., Tiffin, O. (Angles, boots, elbows, heads, joints, offsets, take offs, tees) Tri-State Heating Supply, Inc., Fort Wayne, Ind. United Sheet Metal Co., Inc., Columbus, O.
United States Register Co., Battle Creek, Mich. (Elbows & Valco Corp., St. Paul, Minn. (Plastic) Viking Mfg. Corp., Cleveland, O. Waverly Heating Supply Co., Beverly, Mass. Wheeling Corrugating Co., Wheeling, W. Va. Wheelock Co., Geo. F., Birmingham, Ala. Williamson Co., The, Cincinnati, Ohio. (Aluminum and galvanized)

## DUCT FITTINGS, AIRTIGHT, FOR HIGH VELOCITY SYSTEMS

Carrier Corp., Syracuse, N. Y.
United Sheet Metal Co., Inc., Columbus, O.
Worthington Corp., Harrison, N. J.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

## **DUCT FORMING MACHINES**

See Machines, Sheet Metal Working, Grooving

## DUCT HANGING CLAMPS

See Clamps, Beam, Duct Hanging

#### DUCT INSULATION

See Insulation, Duct

## **DUCT JOINT SEALING COMPOUND**

See Sealers, Duct Joint

# DUCT MIXING UNITS, SOUND AND VOLUME CONTROL, FOR DOUBLE DUCT HIGH VELOCITY AIR CONDITIONING SYSTEMS

See Units, Mixing, Sound and Volume Control, for Double Duct High Velocity Air Conditioning Systems

#### **DUCT ROLLING MACHINES**

See Machines, Sheet Metal Working, Silp Roll Forming

#### DUCT TAPE

See Tape, Duct, Adhesive, for Sealing Joints

#### **DUCT TURNING VANES**

See Vanes, Duct Turning

#### DUCTS, FLEXIBLE

Anaconda Metal Hose Div., American Brass Co., Waterbury, Conn. BTU Industries, Inc., Englewood, N. J. Flexaust Co., The, New York, N. Y. Flexible Tubing Corp., Guilford, Conn. Flexonics Corp., Maywood, Ill. Jet-Heet, Inc., Englewood, N. J. Wiremold Co., Hartford, Conn.

### DUCTS, PREFABRICATED, METAL

Acer & Whedon, Inc., Medina, N. Y.

Acme Furnace Fitting Co., Chicago, Ill.

Acme Mfg. Co., Philadelphia, Pa.

Adelta Mfg. Co., Inc., Philadelphia, Pa.

Aireflo Furnace Pipe Co., Brighton, Mich.

Airfloor Co. of California, Inc., Santa Fe Springs, Calif.

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing

Co., Cincinnati, Ohio.

Armstrong Fittings Co., Des Moines, Ia.

Badger Furnace Pipe Co., Madison, Wis.

Buckeye Mfg. Inc., Columbus, Ohio.

Champion Furnace Pipe Co., Peoria, Ill.

Chandler Co., Cedar Rapids, Iowa.

Char-Gale Mfg. Co., Anoka, Minn.

Cincinnati Stamping & Furnace Co., Cincinnati, O.

Coleman Co., Inc., Wichita, Kans.

Corbman Bros., Inc., Philadelphia, Pa.

Creamer Industries, Inc., Maxwell Steel Div., Fort Worth, Tex.

Detroit Safety Furnace Pipe Co., Detroit, Mich.

Duc-Pac Inc., East Longmeadow, Mass.

Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
Ervite Corp., Erie, Pa. (Porcelain enamel)
Excelsior Steel Furnace Co., Chicago, Ill.
Felter Co., John, Houston, Tex.
Flexonics Corp., Chicago, Ill.
Francer Mfg. & Supply Corp., East Milton, Mass.
Gary Steel Products Corp., Gary, Ind.
General Metals, Inc., Greensboro, N. C.
Grand Island Furnace & Supply Co., Grand Island, Nebr.
Gray Metal Products, Inc., Rochester, N. Y.
Hawthorne Mfg. Corp., Hawthorne, Pa. Gray Metal Products, Inc., Rochester, N. Y. Hawthorne Mig. Corp., Hawthorne, Pa. Henry Furnace Co., Medina, Ohio. Higgins Metal Products Co., The, Swanton, O. Howes-Woods Co., Cambridge, Mass. Hugert Mig. Co., Medina, O. Inland Steel Products Co., Milwaukee, Wis. International Heater Co., Utica, N. Y. J. & J. Sheet Metal Co., Van Dyke, Mich. Keith Furnace Co., Des Moines, Iowa. Krauser-Boyd, Inc., North Tonawanda, N. Y. Labeled Metal Products Corp., Broadview, Ill. Lennox Industries Inc., Marshalltown, Iowa. Lennox Industries Inc., Marshalltown, Iowa. Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif. Lumm Co., A. H., Toledo, O. Made-Rite Co., Inc., Newport, Ky.
Majestic Co., Inc., Newport, Ky.
Majestic Co., Inc., Huntington, Ind.
Maurlee Co., Inc., Woodbury Hts., N. J.
Metal Fabricators, Inc., Charlotte, N. C.
Meyer & Bro. Co., F., Peoria, Ill.
Mitchell Metal Works, Mike, Kosciusko, Miss. Modern Metals, Inc., Houston, Tex.
Moncrief Furnace Co., Atlanta, Ga.
Montag Inc., Portland, Ore.
Morrison Steel Products, Inc., Buffalo, N. Y.
Northwest Metal Products, Inc., Seattle, Wash.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.,
Peerless Corp., Indianapolis, Ind.
Penn Supply & Metal Corp., Philadelphia, Pa.
Perfection Furnace Pipe Co., Toledo, Ohio.
Pressure Airduct Corp., Skokie, Ill. (Insulated)
Ralph Manufacturing Co., Inc., Wadsworth, Ohio
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, O..
Round Oak Co., Inc., Dowagiac, Mich. Modern Metals, Inc., Houston, Tex. Round Oak Co., Inc., Dowagiac, Mich. Ryniker Steel Products Co., Billings, Mont. St. Clair Metal Products Co., Cleveland, O. Schecter Bros. Co., Philadelphia, Pa. Sioux Steel Co., Sioux Falls, S. D. Standard Metal Fabricating Co., Omaha, Nebr. Steel City Furnace Corp., Springdale, Pa. Stratton & Terstegge Co., Inc., Louisville, Ky. Superior Metal Fabricating Co., Niles, O. Superior Metal Fabricating Co., Niles, O. Superior Safety Furnace Pipe Co., Detroit, Mich. Thor Metal Products Co., Inc., Syracuse, N. Y. Tiffin Art Metal Co., Tiffin, O. Tri-State Heating Supply, Inc., Fort Wayne, Ind. United States Register Co., Battle Creek, Mich. Viking Mfg. Corp., Cleveland, Ohio. Waverly Heating Supply Co., Beverly, Mass. Williamson Co., The, Cincinnati, Ohio.

#### DUCTS, PREFABRICATED, NON-METALLIC

American Agile Corp., Bedford, Ohio. (Plastic)
Atlas Mineral Products Co., Mertztown, Pa. (Plastic)
Beetle Plastics Corp., Carl N., Fall River, Mass. (Plastic)
Cannelton Sewer Pipe Co., Cannelton, Ind. (Vitrified clay pipe)
Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works Co.,
Cleveland, O. (Polyvinyl chloride)
Corite Products Inc., Chicago, Ill. (Plastic)
Delta Co., The, Chicago, Ill. (Fiber)
Du Verre, Inc., Buffalo, N. Y. (Plastic)
Flexible Tubing Corp., Guilford, Conn. (Glass fiber cloth)
Gustin-Bacon Mfg. Co., Kansas City, Mo. (Glass fiber)
Haveg Corp., Wilmington, Del. (Plastic)
Heil Process Equipment Corp., Cleveland, O. (Plastic)
Industrial Plastic Fabricators, Inc., Norwood, Mass. (Polyethylene)
International Oil Burner Co., St. Louis, Mo. (Fiber)
Johns-Manville, New York, N. Y. (Asbestos-cement)
Keasbey & Mattison Co., Ambler, Pa. (Asbestos — cement)
Lumm Co., A. H., Toledo, Ohio. (Asbestos cement board)
Middlesex Paper Tube Co., Inc., Lowell, Mass. (Impregnated paper)
Modular Plastic Corp., Detroit, Mich. (Plastic)

Owens-Corning Fiberglas Corp., New York, N. Y. (Glass fiber, foil covered)

Price Bros., Flexicore Div., Dayton, Ohio. (Concrete)
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown,
O.

Richkraft Co., The, Chicago, Ill. (Fibre and aluminum foil)
Robinson Clay Product Co., Akron, O. (Vitrified clay)
Round Tube and Cores Co., Chicago, Ill. (Fiber)
S& C Mfg. Co., Cincinnati, O. (Plastic)
Sonoco Products Co., Construction Products Div., Hartsville,
S. C. (Fiber)

S. C. (Fiber)
Straitsville Brick Co., New Straitsville, O.
Thor Metal Products Co., Inc., Syracuse, N. Y.
United States Rubber Co., New York, N. Y.

Valco Corp., St. Paul, Minn. (Plastic) York Corp., Subsidiary of Borg-Warner Corp., York, Pa. (Glass fiber helical conduit for high pressure systems)

## DUCTS, SPIRAL, WELDED

Carrier Corp., Syracuse, N. Y.
United Sheet Metal Co., Inc., Columbus, O.
Worthington Corp., Harrison, N. J.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

#### **DUST COLLECTORS**

See Collectors, Dust

#### **EAVES TROUGH AND FITTINGS**

See Gutters; Gutter Accessories

#### **EAVE VENTS**

See Roof Trim, Prefabricated

#### **ELBOW MACHINES**

See Machines, Elbow

## **ELBOWS, GUTTER PIPE**

See Pipe and Fittings, Conductor

#### ELECTRIC AIR FILTERS

See Cleaners, Air, Electronic

#### **ELECTRIC BASEBOARD DIFFUSERS**

See Diffusers, Baseboard, with Electric Heating Element

## ELECTRIC HEATING CABLE

See Cable, Electric Heating

## **ELECTRIC MOTORS**

See Motors, Electric

#### ELECTRIC RADIATORS

See Heaters and Radiators, Electric

#### ELECTRIC WALL HEATERS

See Heaters, Electric, Wall and Baseboard

## **ELECTRIC WATER HEATERS**

See Heaters, Water, Storage Type, Domestic, Electric

#### ELECTRIC WELDERS

See Welders

### **ELECTRODES, OIL BURNER**

See Burner Parts, Oil

## ELECTRODES, WELDING

See Rods, Welding

### **ELECTRONIC AIR CLEANERS**

See Cleaners, Air, Electronic

#### EMBOSSED SHEET METAL

See Sheets, Metal Embossed

## **ENCLOSURES, RADIATOR**

Higgins Metal Products Co., The, Swanton, O. Imperial Damper Co., New York, N. Y. Kauffman Air Conditioning Corp., St. Louis, Mo. Somers Corp., Detroit, Mich. Wallace & Gale Co., Baltimore, Md.

#### **EVACUATING PUMPS**

See Pumps, Evacuating, Portable

#### **EVAPORATIVE COOLER PADS**

See Mats, Evaporative Cooler

## **EVAPORATIVE COOLERS**

See Unitary Air Conditioners, Summer, Self-Contained, Evaporative Cooler

## **EVAPORATOR COILS**

See Unitary Air Conditioners, Summer, Coil; Coils, Cooling,
Direct Expansion

## EXCHANGERS, HEAT, FOR AIR TO AIR HEAT RECOVERY

See Units, Heat Recovery, Air to Air

## EXCHANGERS, HEAT, REFRIGERANT SUCTION LINE

Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill.
Doyle & Roth Mfg. Co., Brooklyn, N. Y.
Gerstein & Copper Co., Inc., South Boston, Mass.
Heat-X Inc., Subsidiary of Dunham-Bush Inc., Brewster, N. Y.
Kenmore Machine Products, Inc., Lyons, N. Y.
Kramer Trenton Co., Trenton, N. J.
Larkin Coils, Inc., Atlanta, Ga.
Mueller Brass Co., Port Huron, Mich.
Refrigeration Research, Inc., Brighton, Mich.
Superior Valve and Fittings Co., Pittsburgh, Pa.
Temprite Products Corp., Birmingham, Mich.

## EXPANDED METAL

See Sheets, Expanded Metal

## **EXPANSION BOLTS**

See Bolts, Expansion

## FACES, RETURN AIR, METAL

A & A Register Co., Cleveland, Ohio.
A-J Mfg. Co., Kansas City, Mo.
Adelta Mfg. Co., Philadelphia, Pa.
Air Control Producta, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air-Factors, Inc., New York, N. Y.
Air-Factors, Inc., Monrovia, Calif.
Auer Register Co., Cleveland, Ohio.
Barber-Colman Co., Rockford, Ill.
Char-Gale Mfg. Co., Los Angeles, Calif.
Corbman Bros., Inc., Philadelphia, Pa.
Diamond Mfg. Co., Wyoming, Pa.
General Air Products Corp., Cedar Grove, N. J.
Harrington & King Perforating Co., Inc., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Hendrick Mfg. Co., Carbondale, Pa.
Independent Register Co., Cleveland, Ohio.
Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
Lima Register Co., Lima, Ohio.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Made-Rite Co., Inc., Newport, Ky.
Maurlee Co., Inc., Woodbury Hts., N. J.
Midco Register Corp., St. Paul, Minn.
Mundt & Sons, Charles, Jersey City, N. J.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Rock Island Register Co., Rock Island, Ill.
Shoemaker Mfg. Co., Scattle, Wash.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Tuttle & Bailey Div. of Allied Thermal Corp., New B A & A Register Co., Cleveland, Ohio. Standard Stamping & Perforating Co., Chicago, Ill.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn. United States Register Co., Battle Creek, Mich. Warren Register and Grille, Inc., Miami, Fla.

#### **FAN CONTROLS**

See Controls, Fan

#### **FAN HOUSINGS**

See Housings, Blower and Fan

## FANS, PROPELLER TYPE, ATTIC

Acme Engineering & Mfg. Corp., Muskogee, Okla. Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, O. Airmaster Corp., Chicago, Ill. American Air Filter Co., Inc., Louisville, Ky. American Coolair Corp., Jacksonville, Fla. American-Standard Industrial Div., Detroit, Mich. American Air Filter Co., Inc., Louisville, Ky.
American Coolair Corp., Jacksonville, Fla.
American-Standard Industrial Div., Detroit, Mich.
Ammerman Co., Inc., Stillwater, Minn.
Bar-Brook Mfg. Co., Inc., Shreveport, La.
Belco Industries, Inc., St. Louis, Mo.
Brookside Corp., McCordsville, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Cirklair Products Div., Folsom Co., Inc., Dallas, Tex.
Commercialaire Corp. of America, Brooklyn, N. Y.
Consolidated General Products, Inc., Houston, Tex.
Dana Fan & Blower Corp., Cincinnati, O.
Diehl Mfg. Co., Somerville, N. J.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Emerson Electric Mfg. Co., St. Louis, Mo.
Emerson-Pryne Co., Pomona, Calif.
Felter Co., John, Houston, Tex.
Fort Valley Fan Co., Fort Valley, Ga.
Hunter Div., Robbins & Myers, Inc., Memphis, Tenn.
Ilg Electric Ventilating Co., Chicago, Ill.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Kloppenborg Foundry & Fan Co., Davenport, Ia.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
Lau Blower Co., Dayton, O.
McLean Engineering Laboratories, Princeton, N. J.
Meier Electric, Indianapolis, Ind.
Norky Mfg. Corp., Covington, Ky.
Peerless Electric Div., The H. K. Porter Co., Inc., Warren, O.
Phelps Mfg. Co., Little Rock, Ark.
Reed Unit-Fans, Inc., New Orleans, La.
Rich Fan Mfg. Co., Phil, Houston, Tex.
Robbins & Myers, Inc., Springfield, O.
Tennessee Fabricating Co., Memphis, Tenn.
Triangle Engineering Co., Houston, Tex. Wind-Way Fan & Ventilator Co., New Orleans, La. Zink Co., John, Tulsa, Okla.

## FANS, PROPELLER TYPE, AXIAL FLOW

Acme Engineering & Mfg. Corp., Muskogee, Okla. Acmovent Fan Co., Piqua, Ohio.
Aerovent Fan Co., Piqua, Ohio.
Airfan Engineering Co., Los Angeles, Calif.
Allen Cooler & Ventilator Inc., Rochester, Mich.
Alloy Propeller Co., Zelienople, Pa.
American-Standard Industrial Div., Detroit, Mich.
Ammerman Co., Inc., Stillwater, Minn.
Bertram Co., Harvey P., Cincinnati, Ohio.
Blower Application Co., Milwaukee, Wis.
Brookside Corp., McCordsville, Ind.
Buffalo Force Co., Buffalo, N. V. Buffalo Forge Co., Buffalo, N. Y.
Century Fan & Ventilator Co., Inc., Stamford, Conn.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill. Cook Co., Loren, Berea, O.
Corite Products Inc., Chicago, Ill. (Plastic and plastic coated)
Dana Fan & Blower Corp., Cincinnati, Ohio.
De Bothezat Fans Div., American Machine and Metals, Inc., East Moline, Ill.

Electric Boat Div., General Dynamics Corp., Groton, Conn.

Frigid, Inc., Brooklyn, N. Y.

Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, Ohio.

Heil Process Equipment Corp., Cleveland, O. (Plastic)

Ilg Electric Ventilating Co., Chicago, Ill.

Industrial Plastic Fabricators, Inc., Norwood, Mass. (Plastic)

International Engineering, Inc., Dayton, Ohio.

Joy Mfg. Co., Pittsburgh, Pa.

Koppers Co., Inc., Metal Products Div., Baltimore, Md.

Mat E Mfg. Co., Indianapolis, Ind.

Martin Fan & Blower Co., Chicago, Ill.

Moore Co., Marceline, Mo.

Peerless Electric Div., The H. K. Porter Co., Warren, O.

Penn Ventilator Co. Inc., Philadelphia, Pa.

Power Line Fan Co., Div. of Chelsea Products Inc., Plainfield,

N. J. Moline, Ill. N. J.
Propellair Div., Robbins & Myers, Inc., Springfield, O.
Reed Unit-Fans, Inc., New Orleans, La.
Robbins & Myers, Inc., Springfield, Ohio.
Robinson Ventilating Co., Zelienople, Pa.
South Bend Air Products, Inc., South Bend, Ind.
Sutton Corp., O. A., Wichita, Kans.
Trane Co., The, LaCrosse, Wis.
Vernoo Corp., Columbus, Ind.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.
Wind-Way Fan & Ventilator Co., New Orleans, La.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.
Zink Co., John, Tulsa, Okla.

## FANS, PROPELLER TYPE, BOOSTER, COLD AIR RETURN

Advance Aluminum Castings Corp., Chicago, Ill.
Berns Air King Corp., Chicago, Ill.
Brookside Corp., McCordsville, Ind.
Brumme Mfg. Co., Topeka, Kans.
Cary Mfg. Co., Waupaca, Wis.
Dana Fan & Blower Corp., Cincinnati, Ohio.
International Engineering, Inc., Dayton, Ohio.
Martin Fan & Blower Co., Chicago, Ill.
Mauer Engineering, Evanston, Ill.
McLarty Systems, Battle Creek, Mich.
Robbins & Myers, Inc., Springfield, Ohio.
Silent Sioux Corp., Orange City, Iowa.
Western Engineering & Mfg. Co., Venice, Calif.

## FANS, PROPELLER TYPE, BOOSTER, ONE-PIPE WARM AIR

Brookside Corp., McCordsville, Ind.
Brumme Mfg. Co., Topeka, Kans.
Champion Blower & Forge Co., Lancaster, Pa.
Duna Fan & Blower Corp., Cincinnati, Ohio.
Lynch & Sons, Kenneth, Wilton, Conn. (Ornamental)
Martin Fan & Blower Co., Chicago, Ill.
Mauer Engineering, Evanston, Ill.
McLarty Systems, Battle Creek, Mich.
New-Aire Blower Co., Madison Heights, Mich.
Park Heating Specialties, Minneapolis, Minn.
Robbins & Myers, Inc., Springfield, Ohio.
Standard Electric Mfg. Co., Inc., West Berlin, N. J. Brookside Corp., McCordsville, Ind.

Victor Electric Products, Inc., Cincinnati, Ohio. Western Engineering & Mig. Co., Venice, Calit.

## FANS, PROPELLER TYPE, EXHAUSTERS

Acme Engineering & Mfg. Corp., Muskogee, Okla. Acrovent Fan Co., Inc., Piqua, O.
Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, O.
Airfan Engineering Co., Los Angles, Calif.
Airmaster Corp., Chicago, Ill.
Allen Cooler & Ventilator Inc., Rochester, Mich. Allen Cooler & Venttlator Inc., Rochester, Mich. American Air Filter Co., Inc., Louisville, Kv. American-Standard Industrial Div., Detroit, Mich. Ammerman Co., Inc., Stillwater, Minn. Baldor Electric Co., St. Louis, Mo. Bertram Co., Harvey P., Gincinnati, Ohio. Binks Mfg. Co., Chicago, Ill. Black Mfg. Co., Baltimore, Md. Brookville Corp. McCordsville, Ind. Brookside Corp., McCordsville, Ind. Buffalo Forge Co., Buffalo, N. Y. Century Fan & Ventilator Co., Inc., Stamford, Conn. Champion Blower & Forge Co., Lancaster, Pa.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Cirklair Products Div., Folsom Co., Inc., Dallas, Tex. Clarage Fan Co., Kalamazoo, Mich. Commercialaire Corp. of America, Brooklyn, N. Y. Commercializer Corp. of America, Brooklyn, N. Y.
Cook Co., Loren, Berea, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Cortte Products Inc., Chicago, Ill. (Plastic and plastic coated)
Damp-Vent Co., Bettendorf, Ia. Dana Fan & Blower Corp., Cincinnati, Ohio.
De Bothezat Fans Div., American Machine and Metals, Inc., East Moline, Ill. Diehl Mfg. Co., Somerville, N. J.
Du Verre, Inc., Buffalo, N. Y. (Plastic)
Electrovent Fan & Mfg. Co., Chicago, Ill.
Frigid, Inc., Brooklyn, N. Y.
Gallaher Co., Omaha, Nebr. General Blower Co., Subsidiary of Ilg Electric Ventilating Co., Morton Grove, Ill. Hunter Div., Robbins & Myers, Inc., Memphis, Tenn. lig Electric Ventilating Co., Chicago, Ill. International Engineering, Inc., Dayton, O. Jenn Air Products Co., Indianapolis, Ind. Jordan & Co., Inc., Paul R., Indianapolis, Ind. Joy Mfg. Co., Pittsburgh, Pa. King Co., Owatonna, Minn. Kirk & Blum Mfg. Co., Cincinnati, Ohio. Kisco Boiler & Engineering Co., St. Louis, Mo. Kloppenborg Foundry & Fan Co., Davenport, Ia. Martin Fan & Blower Co., Chicago, Ill. McLarty Systems, Battle Creek, Mich. Moore Co., Marceline, Mo. Mourtain States Equipment Co., Denver, Colo.
Muckle Mfg. Co., Owatonna, Minn.
National Engineering & Mfg. Co., Sedalia, Mo.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.

New York Blower Co., Chicago, Ill.

Palmer Engineering Co., Fan Div., Green Bay, Wis.

Peerless Electric Div., The H. K. Porter Co., Warren, O.

Penn Ventilator Co., Inc., Philadelphia, Pa. Power Line Fan Co., Div. of Chelsea Products Inc., Plainfield, N. J.
Propellair Div., Robbins & Meyers, Inc., Springfield, O.
Reed Unit-Fans, Inc., New Orleans, La.
Rich Fan Mfg. Co., Phil, Houston, Tex.
Robbins & Myers, Inc., Springfield, O.
Ruemelin Mfg. Co., Milwaukee, Wis.
South Bend Air Products, Inc., South Bend, Ind.
Sutton Corp., O. A., Wichita, Kans.
Torit Mfg. Co., St. Paul, Minn.
Trade-Wind Motorfans, Inc., Pico Rivera, Calif.
Trane Co., The, La Crosse, Wis.
Vernoc Corp., Columbus, Ind. Wernco Corp., Columbus, Ind.
Western Engineering & Mfg. Co., Venice, Calif.
Wind-Way Fan & Ventilator Co., New Orleans, La.
Wing Mfg. Div., L. J., Acro Supply Mfg. Co. Inc., Linden, N. J.
Zink Co., John, Tulsa, Okla.

## FANS, PROPELLER TYPE, FURNACE

American-Standard Industrial Div., Detroit, Mich. Brookside Corp., McCordsville, Ind. Brumme Mfg. Co., Topeka, Kans.

Dana Fan & Blower Corp., Cincinnati, Ohio. De Bothezat Fan Div., American Machine and Metals, Inc., East Moline, III. Joy Mfg. Co., Pittsburgh, Pa. Martin Fan & Blower Co., Chicago, Ill. McLarty Systems, Battle Creek, Mich.
Peerless Electric Div., The H. K. Porter Co., Warren, O.

## FANS, PROPELLER TYPE, KITCHEN EXHAUST

Air Control Products, Inc., Coopersville, Mich American-Standard Industrial Div., Detroit, Mich. American-standard Industrial Div., Detroi Ammerman Co., Inc., Stillwater, Minn. Arizona Maintenance Co., Tucson, Ariz. Bar-Brook Mfg. Co., Inc., Shreveport, La. Berns Air King Corp., Chicago, Ill. Broan Mfg. Co., Inc., Hartford, Wis. Brookside Corp., McCordsville, Ind. Buffalo Forge Co., Buffalo, N. Y. Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. Century Fan & Ventilator Co., Inc., Stamford, Conn. Champion Blower & Forge Co., Lancaster, Pa. Chelsea Fan & Blower Co., Inc., Plainfield, N. J. Chelsea Fan & Blower Co., Inc., Plainfield, N. Clarage Fan Co., Kalamazoo, Mich. Cook Co., Loren, Berea, O. Dana Fan & Blower Corp., Cincinnati, Ohio. Electrovent Fan & Míg. Co., Chicago, Ill. Emerson Electric Míg. Co., St. Louis, Mo. Emerson-Pryne Co., Pomona, Calif. Fasco Industries, Inc., Rochester, N. Y. Ilg Electric Ventilating Co., Chicago, Ill. Jenn Air Products Co., Indianapolis, Ind. Kloppenborg Foundry & Fan Co., Davenport, Ia. Kool Air Engineering Co., San Bernardino. Calif. Kool Air Engineering Co., San Bernardino. Ca Lau Blower Co., Dayton, Ohio. Martin Fan & Blower Co., Chicago, Ill. Marvin Electric Mfg. Co., Los Angeles, Calif. McLarty Systems, Battle Creek, Mich. Meyer Mfg. Co., Detroit, Mich. NuTone, Inc., Cincinnati, O. Peerless Electric Co., Warren, Ohio.
Propellair Div., Robbins & Meyers, Inc., Springfield, O.
Pyrne & Co., Inc., Pomona, Calif. Simpson Co., Oakland, Calif. Skinner Heating & Ventilating Co. Div. Young Sales Corp., St. Mo. Louis, Mo.

Standard Electric Mfg. Co., Inc., West Berlin, N. J.

Stewart Industries, Inc., Indianapolis, Ind.

Sutton Corp., O. A., Wichita, Kans.

Thermador Electrical Mfg. Co. Div. of Norris-Thermador Corp., Los Angeles, Calif.

Trade-Wind Div., Robbins & Meyers, Inc., Pico Rivera, Calif.

Universal Blower Co., Birmingham, Mich.

Vantrala Mfg. Co. Owosso, Mich. Ventrola Mfg. Co., Owosso, Mich.
Vernco Corp., Columbus, Ind.
West Wind Corp., Seattle, Wash.
Westinghouse Electric Corp., Refrigeration Specialties Div.,
Springfield, Mass. Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.

#### FANS, PROPELLER TYPE, WINDOW EXHAUST

Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, O. American Coolair Corp., Jacksonville, Fla. Baldor Electric Co., St. Louis, Mo. Baldor Electric Co., St. Louis, Mo.
Berns Air King Corp., Chicago, Ill.
C. & H. Air Conditioning Fan Co., Inc., Atlanta, Ga.
Champion Blower & Forge Co., Lancaster, Pa.
Emerson Electric Mfg. Co., St. Louis, Mo.
Fasco Industries, Inc., Rochester, N. Y.
Fresh Air Circulator Co., Houston, Tex.
Hunter Div., Robbins & Meyers, Inc., Memphis, Tenn.
International Oil Burner Co., St. Louis, Mo.
Lakewood Engineering & Mfg. Co., Chicago, Ill.
National Engineering & Mfg. Co., Sedalia, Mo.
NuTone, Inc., Cincinnati, O.
Propellair Div., Robbins & Meyers, Inc., Springfield, O.
Reed Unit-Fans, Inc., New Orleans, La.
Seco-Lite Mfg. Co., St. Louis, Mo.
Sutton Corp., O. A., Wichita, Kans.
Westinghouse Electric Corp., Refrigeration Specialties Div.,
Springfield, Mass.

Springfield, Mass.

## FASTENERS, CARTRIDGE TYPE

See Guns, Stud

## **FASTENINGS, INSULATION**

Cuyahoga Products Corp., Subsidiary Republic Industrial Corp., Cleveland, O.

Gerrard & Co., A. J., Melrose Park, Ill
Graham Mfg. Corp., Needham Hts., Mass.
K. S. M. Products Co., Merchantville, N. J.
Lane Sheet Metal, Minot, N. D.
Marman Div., Aeroquip Corp., Los Angeles, Calif.,
Maurlee Co., Inc., Woodbury Heights, N. J.
Miracle Adhesives Corp., Bellmore, L.I., N. Y.
Moore, Inc., Goodloe, E., Danville, Ill.
Mueller Co., Paul, Springfield, Mo.
Nelson Stud Welding Div., Gregory Industries, Inc.,
Ramset Fastening System, Winchester-Western

Mueller Co., Paul, Springfield, Mo.

Nelson Stud Welding Div., Gregory Industries, Inc., Lorain, O.

Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp., New Haven, Conn.

Shielded Stud Welding Co., Long Beach, Calif.

Stic-Klip Mfg. Co., Inc., Cambridge, Mass.

Tinnerman Corp., Geo. A., Cleveland, O.

Western Wire Products Co., St. Louis, Mo.

## FASTENINGS, SHEET METAL

Allmetal Screw Products Co., Inc., Garden City, N. Y.
Camloc Fastener Corp., Paramus, N. J.
Carr Fastener Co. Div. United-Carr Fastener Corp., Cambridge,
Mass. (Studs, clips, receptacles, special nuts, etc.)
Champion Furnace Pipe Co., Peoria, Ill.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Diamond Expansion Bolt Co., Inc., Garwood, N. J.
Fabricated Products Co., West Newton, Pa.
Hexdall Co., A. M., Morris, Ill.
Inland Steel Products Co., Milwaukee, Wis.
Pfeifer Bros., New York, N. Y. (Corrugated roofing sheet fasteners)
Ramset Fastening System, Winchester-Western Div., Olin
Mathieson Chemical Corp., New Haven, Conn.
Shakeproof Div., Illinois Tool Works, Elgin, Ill.
Snappy Inc., Detroit Lakes, Minn. (Round duct hangers)
Southco Div., South Chester Corp., Lester, Pa.
Star Expansion Bolt Co., New York, N. Y.
Star Stainless Screw Co., Paterson, N. J.
Tinnerman Corp., Geo. A., Cleveland, Ohio.

### FELT, ROOFING

Barber Co., Inc., Philadelphia, Pa.
Barrett Div. Allied Chemical & Dye Corp., New York, N. Y.
Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio.
Celotex Corp., Chicago, Ill.
Certain-teed Products Corp., Ardmore, Pa.
Detroit Steel Products Co., Detroit, Mich.
Flintkote Co., New York, N. Y.
Globe Roofing Products Co., Inc., Whiting, Ind.
Johns-Manville, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Koppers Co., Inc., Pittsburgh, Pa.
Lexsuco, Inc., Solon, O.
National Mfg. Corp., Tonawanda, N. Y.
Ohio Paper Co., Miamisburg, Ohio.
Owens-Corning Fiberglas Corp., New York, N. Y.
Pacific States Felt & Mfg. Co., Inc., San Francisco, Calif.
Reilly Tar & Chemical Corp., Indianapolis, Ind.
Ruberoid Co., New York, N. Y.
United States Gypsum Co., Chicago, Ill.

#### FIBERS FOR AIR FILTERS

American Felt Co., Glenville, Conn.

American Viscose Corp., New York, N. Y.

Arco Mfg. Corp., New York, N. Y.

Celanese Corp. of America, Charlotte, N. C.

Chicopee Mills, Inc., New York, N. Y.

du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

Eastman Chemical Products, Inc., Subsidiary Eastman Kodak

Co., Kingsport, Tenn.

Enjay Co., New York, N. Y.

Filt-R-Ite Co., Chicago, Ill.

Foamade Industries, Oak Park, Mich.
Microtron Corp., Charlotte, N. C.
National Aniline Div., Allied Chemical & Dye Corp., New
York, N. Y.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Scott Paper Co., Chester, Pa.
Union Carbide Plastics Co., Div. of Union Carbide Corp., New
York, N. Y.
Wickford Products, Inc., New York, N. Y.

#### FILING MACHINES

See Machines, Sheet Metal Working, Filing

## FILTER ADHESIVES

See Oils, for Coating Viscous Air Filters

#### FILTER FIBERS

See Fibers for Air Filters

#### FILTER FRAMES

See Frames, Filter

#### FILTER GAGES

See Gages, Indicating, Filter Resistance

#### FILTER MEDIA

See Fibers for Air Filters

## FILTERS, AIR, AUTOMATIC, DRY

American Air Filter Co., Inc., Louisville, Ky. Continental Air Filters, Inc., Louisville, Ky. Day Co., Minneapolis, Minn. Ducon Co., The, Mineola, N. Y. Farr Co., Los Angeles, Calif. Flanders Filters, Inc., Riverhead, L.I., N. Y. Green Fuel Economizer Co., Inc., Beacon, N. Y.

## FILTERS, AIR, AUTOMATIC, VISCOUS

Air-Maze Corp., Cleveland, O. American Air Filter Co., Inc., Louisville, Ky. Continental Air Filters, Inc., Louisville, Ky. Dollinger Corp., Rochester, N. Y. Farr Co., Los Angeles, Calif.

## FILTERS, AIR, ELECTRONIC

See Cleaners, Air, Electronic

## FILTERS, AIR, GREASE (SPECIFICALLY DESIGNED FOR KITCHEN EXHAUST SYSTEMS)

Air-Con Filter Corp., Memphis, Tenn.

Air Devices, Inc., New York, N. Y.

Air Filter Corp., Milwaukee, Wis.

Air-Maze Corp., Cleveland, Ohio.

Air Stream Filter Corp., St. Louis, Mo.

American Air Filter Co., Inc., Louisville, Ky.

Carey Electronic Engineering Co., Metal Wool Div., Springfield,

O.

Continental Air Filters, Inc., Louisville 1, Ky.

Dollinger Corp., Rochester, N. Y.

Evans Corp., George, Moline, Ill. (Aluminum)

Extraer, Inc., Houston, Tex.

Parr Co., Los Angeles, Calif.

Research Products Corp., Madison, Wis.

Smith Filter Corp., Moline, Ill.

## FILTERS, AIR, HIGH TEMPERATURE

For use in filtering air at temperatures of 1000 F or above

Cambridge Filter Corp., Syracuse, N. Y. Continental Air Filters, Inc., Louisville, Ky. Farr Co., Los Angeles, Calif. Flanders Filters, Inc., Riverhead, L.I., N. Y.

### FILTERS, AIR, MANUAL, DRY

Auto-Flo Corp., Detroit, Mich. Continental Air Filters, Inc., Louisville, Ky. Ducon Co., The, Mineola, N. Y. Fairway Div., Detroit, Mich.

## FILTERS, AIR, PANEL, DRY

A C Products, Inc., Houston, Tex.
Air-Maze Corp., Cleveland, O.
Air Stream Filter Corp., St. Louis, Mo.
American Air Filter Co., Inc., Louisville, Ky.
Annis Air Filter Div., Royal Heaters, Inc., Alhambra, Calif.
Arco Mfg. Corp., New York, N. Y.
Buckeye Mfg. Inc., Columbus, O.
Burke and Co., Los Angeles, Calif.
Burnett, Jr., Inc., J. F., Rochester, N. Y.
Cambridge Filter Corp., Syracuse, N. Y.
Cambridge Filter Corp., Syracuse, N. Y.
Carey Electronic Engineering Co., Metal Wool Div., Springfield,
O.
Continental Air Filters, Inc., Louisville, Ky.
Dollinger Corp., Rochester, N. Y.
Dornback Furnace and Foundry Co., Eastlake, O.
Extraer, Inc., Houston, Tex.
Filt-R-Ite Co., Chicago, Ill.
Fram Corp., Providence, R. I.
Microtron Corp., Charlotte, N. C.
Permatron Corp., Chicago, Ill.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Pollen Ex., Chicago, Ill.
Research Products Corp., Madison, Wis.
Somers Corp., Detroit, Mich. (Hair and glass)
Star Woolen Co., Cohoes, N. Y.
Stoddard Industries, Inc., Cudahy, Wis. (Woven plastic)
Verno Corp., Columbus, Ind.
Viking Air Products, Div. National-U.S. Radiator Corp.,
Cleveland, O.

## FILTERS, AIR, PANEL, DRY, COMBINED WITH ACTIVATED CHARCOAL FOR ODOR CONTROL

American Air Filter Co., Inc., Louisville, Ky. Barnebey-Cheney Co., Pur Air Div., Columbus, O. Burke and Co., Los Angeles, Calif. Cambridge Filter Corp., Syracuse, N. Y. Connor Engineering Corp., Danbury, Conn. Flanders Filters, Inc., Riverhead, L.I., N. Y. Pafcon Products Corp., Wickliffe, O.

## FILTERS, AIR, PANEL, DRY, SUB-MICRON PARTICULATE

Cambridge Filter Corp., Syracuse, N. Y. Farr Co., Los Angeles, Calif. Flanders Filters, Inc., Riverhead, L.I., N. Y. Mine Safety Appliances Co., Pittsburgh, Pa.

### FILTERS, AIR, PANEL, VISCOUS

Air-Con Filter Corp., Memphis, Tenn. (Steel and aluminum)
Air Devices, Inc., New York, N. Y. (Steel wire mesh)
Air & Refrigeration Corp., New York, N. Y. (Fiberglas)
Air Filter Corp., Milwaukee, Wis. (Wire cloth)
Air-Maze Corp., Cleveland, Ohio. (Metal wire baffles)
Air Stream Filter Corp., St. Louis, Mo.
American Air Filter Co., Inc., Louisville, Ky. (Glass fibers)
American Rock Wool Co., Chicago, Ill.
Associated Mills Inc., Chicago, Ill.
Bard Mfg. Co., Bryan, O. (Aluminum)
Continental Air Filters, Inc., Louisville, Ky. (Steel & aluminum)
Coppus Engineering Corp., Worcester, Mass. (Felt)

Dollinger Corp., Rochester, N. Y. (Feltex, Glastex, heat resistant cotton)

Evans Corp., George, Moline, Ill. (Aluminum)

Parr Co., Los Angeles, Calif. (Metal)

Master Products Co., Chicago, Ill. (Rubber treated hair)

Research Products Corp., Madison, Wis. (Metal)

Smith Filter Corp., Moline, Ill. (Aluminum)

Time Tested Products Co., Houston, Tex. (Hair)

## FILTERS, AIR, PANEL, WITH PLASTIC MEDIA

Besser Furnace and Air Conditioning Corp., Charlotte, N. C. Continental Air Filters, Inc., Louisville, Ky.
DuraLast Products Corp., New Orleans, La.
Eaton Air Filter Co., Detroit, Mich.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Harvey-Hill, Inc., St. Louis, Mo.
Permatron Corp., Chicago, Ill.
Safeguard Corp., Lansdale, Pa.
Skuttle Mfg. Co., Milford, Mich.
Stoddard Industries, Inc., Cudahy, Wis.

## FILTERS, AIR, THROWAWAY

Airgard Mfg. Co., Chicago, Ill.
Air Stream Filter Corp., St. Louis, Mo.
American Air Filter Co., Inc., Louisville, Ky.
Arco Mfg. Corp., New York, N. Y. (Synthetic fiber)
Barnebey-Cheney Co., Pur Air Div., Columbus, O.
Brauer Supply Co., St. Louis, Mo.
C.L.B. Co., Houston, Tex.
Cambridge Filter Corp., Syracuse, N. Y. (Replaceable cartridge)
Drioo Industrial Corp., Passaic, N. J.
Extracr, Inc., Houston, Tex.
Filt.B.Ite Co., Chicago, Ill.
Harvey, Inc., Sid, Valley Stream, N. Y.
Kendall Co., Walpole, Mass.
Lennox Industries Inc., Marshalltown, Ia.
Mamco Corp., Racine, Wis.
Metal Industries, Inc., Clearwater, Fla.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Standard Asbestos Mfg. Co., Chicago, Ill.
Technical Filter Co., Chicago, Ill.
Wickford Products, Inc., New York, N. Y.

#### FILTERS, FUEL OIL

Air-Maze Corp., Cleveland, O.
Auto-Flo Corp., Detroit, Mich.
Barclay, Inc., Robt., Chicago, Ill.
Burn-Rite Products Co., Yonkers, N. Y.
Carlson Co., Inc., A. B., Aurora, Ill.
Commercial Filters Corp., Melrose, Mass.
Cuno Engineering Corp., Meriden, Coan.
Eddington Metal Specialty Co., Eddington, Pa.
Fairway Division, Detroit, Mich.
Fram Corp., Providence, R. I.
General Filters, Inc., Novi, Mich.
Harvey, Inc., Sid, Valley Stream, N. Y.
Klemm Automotive Products Co., Chicago, Ill.
Kraissl Co., Inc., Hackensack, N. J.
McIntire Co., Livingston, N. J.
McIntire Co., Livingston, N. J.
Morse-Smith-Morse Co., The, Watertown, Mass.
Norwood Products Co., Div. A. R. Wood Mfg. Co., Luverne, Minn.
Preferred Utilities Mfg. Corp., New York, N. Y.
Purolator Products, Inc., Rahway, N. J.
Rega Mfg. Co., Rochester, N. Y.
Sette Products Co., Oakland, Calif.
Shelton Co., New Haven, Conn.
Sparkler Mfg. Co., Mundelein, Ill.
Standard Automatic Oil Burner Co., Newark, N. J.
Tool Industries, Inc., Detroit, Mich.
W.G.B. Oil Clarifier, Inc., Kingston, N. Y.
Wix Corp., Gastonia, N. C.

## FILTERS, ODOR

See Adsorbers, Odor, for Duct Systems

### FILTERS, SELF CHARGING

See Filters, Air, Panel, with Plastic Media

#### FIRE BRICK

See Refractories

## FIREPLACES, METAL

Bennett-Ireland, Inc., Norwich, N. Y. Chimney Sales Corp., Washington, D. C. Donley Bros. Co., Cleveland, O. Dollinger Corp., Rochester, N. Y. Majestic Co., Inc., Huntington, Ind. Vega Industries, Inc., Syracuse, N. Y.

#### FIREPOTS

See Parts, Repair, Furnace and Stove

## FITTINGS, CONDUCTOR

See Pipe and Fittings, Conductor

## FITTINGS, COPPER TUBE, COMPRESSION AND FLARED

American Brass Co., Waterbury, Conn.
Anderson Metals Corp., Kansas City, Mo.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Brerhot Products Co., Chicago, Ill.
Fisher Brass Foundry and Mfg., Los Angeles, Calif.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Kerotest Mfg. Co., Pittsburgh, Pa.
Lincoln Brass Works, Detroit, Mich.
Madden Brass Products Co., Aurora, Ill.
Mueller Brass Co., Port Huron, Mich.
Mueller Brass Co., Port Huron, Mich.
Mueller Go., Decatur, Ill.
Nibco Inc., Elkhart, Ind.
Oil Equipment Mfg. Co., New Haven. Conn.
Parker Fittings & Hose Div., Parker-Hannifin Corp., Cleveland, O.
Piper Tool Co., Roseville, Mich.
Remco, Inc., Zelienople, Pa.
Superior Valve and Fittings Co., Pittsburgh, Pa.
Weatherhead Co., Fort Wayne Div., Ft. Wayne, Ind.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

#### FITTINGS, DUCT

See Duct Fittings

#### FITTINGS, EXHAUST, GARAGE

For Attaching Car Exhaust Pipe

Anaconda Metal Hose Div., American Brass Co., Waterbury, Conn.

Ammerman Co., Inc., Stillwater, Minn.
Engwald Corp., The, Inwood, L.I., N. Y.
Kent-Moore Organization, Inc., Warren, Mich.
Wendt Co., O. A., Chicago, Ill.

## FITTINGS, GUTTER

See Gutter Accessories

## FITTINGS, HUMIDIFIER, WATER LINE

Arklon Mfg. Co., Cleveland, O. Auto-Flo Corp., Detroit, Mich. Fairway Division, Detroit, Mich. Imperial Brass Mfg. Co., Chicago, Ill. Lincoln Brass Works, Detroit, Mich. Maid-O'-Mist, Inc., Chicago, Ill. Skuttle Mfg. Co., Milford, Mich.

## FITTINGS, PIPE, SLIP-ON

Guardian Products Corp., Michigan City, Ind. Hollaender Mfg. Co., Cincinnati, O. Slip-On Co., The, Atlanta, Ga.

#### FLANGING MACHINES

See Machines, Flanging

## FLASHINGS, ROOF, PREFABRICATED

Acme Roof Jacket Co., Minneapolis, Minn.
Alpha Metals, Inc., Jersey City, N. J.
American Metal Products, Los Angeles, Calif.
Appleton Supply Co., Inc., Appleton, Wis.
Associated Metal Products Corp., La Porte, Ind.
Atchison Specialty Mfg. Co., Atchison, Kans.
Berger Div., Republic Steel Corp., Canton, Ohio.
Bowman Steel Corp., Pittsburgh, Pa.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Division Lead Co., Summit, Ill.
Flashrite, Inc., Cheyenne, Wyo.
Flemm Lead Co., Inc., Long Island City, N. Y.
Fry Reglet Corp., Los Angeles, Calif.
Higgins Metal Products Co., The, Swanton, O.
Hussey & Co., C. G., Pittsburgh, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Johns-Manville, New York, N. Y.
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Keystone Flashing Co., Philadelphia, Pa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Ludlow Papers, Inc., Needham Heights, Mass.
National Lead Co., New York City, N. Y.
New Delphos Mfg. Co., Delphos, Ohio.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Northwest Metal Products, Inc., Seattle, Wash.
Penn Supply & Metal Corp., Philadelphia, Pa.
Perkinson, William J., Chicago, Ill.
Pioneer Sand & Gravel, Seattle, Wash.
Plasteel Products Co., Washington, Pa.
Quaker State Metals Co., Lancaster, Pa.
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, Ohio.
Republic Steel Corp., Cleveland, O.
Revere Copper & Brass Inc., New York, N. Y.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
Schoedinger, F. O., Columbus, Ohio.
Simplex Mfg. Co., Fond du Lac, Wis.
Simpson Co., Oakland, Calif.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
Van Noorden Co., E., Boston, Mass.
Wallace Co., William, Metalbestos Div., Belmont, Calif.
Wheeling Corrugating Co., Wheeling, W. Va.

#### FLASHINGS, THROUGH-WALL, PREFABRICATED

American Brass Co., Waterbury, Conn.
Associated Metal Products Corp., La Porte, Ind.
Bowman Steel Corp., Pittsburgh, Pa.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Division Lead Co., Summit, Ill.
Downs-Smith Brass & Copper Co., Inc., Long Island City, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Keystone Flashing Co., Philadelphia, Pa.
Los Angeles Sheet Metal Mfg. Co., Los Angeles, Calif.
New Delphos Mfg. Co., Delphos, Ohio.
Perkinson, William J., Chicago, Ill.
Phoenix Building Products, Inc., Philadelphia, Pa. (Copper and lead)
Revere Copper and Brass Inc., New York, N. Y.
Van Noorden Co., E., Boston, Mass.
Wasco Products, Inc., Cambridge, Mass.

## FLEXIBLE DUCT

See Ducts, Flexible

#### FLEXIBLE REFRIGERANT LINE CONNECTIONS

See Absorbers, Vibration, for Refrigerant Lines

## FLOAT VALVES, FUEL OIL

See Controls, Fuel Oil Metering Valves

#### FLOOR REGISTERS

See Diffusers, Air, Floor, also Grilles, Heating, Ventilating and Air Conditioning

### FLUE GAS ANALYZERS

See Analyzers, CO, Portable

## FLUX, ACID

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Parrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Kester Solder Co., Chicago, Ill.
Klem Chemicals, Inc., Dearborn, Mich.
Lenk Mfg. Co., Franklin, Ky.
National Lead Co., New York, N. Y.
Neilson Chemical Co., Detroit, Mich.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denver, Colo.
United Wire & Supply Corp., Providence, R. I.
Wolfe-Kote Co., Sheboygan, Wis.

### FLUX, ALUMINUM

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
Aluminum Co. of America, Pittsburgh, Pa.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Chemetron Corp., Chicago, Ill.
Farrelloy Co., Philadelphia, Pa.
Pusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Lake Chemical Co., Chicago, Ill.
Lake Chemical Co., Chicago, Ill.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Modern Engineering Co., St. Louis, Mo.
National Lead Co., New York, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.

## FLUX, BRASS

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.

Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Dunton Co., M.W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Parrelloy Co., Philadelphia, Pa.
Pusion Engineering, Cleveland, O.
Handy & Harman, New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Lake Chemical Co., Chicago, Ill.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Modern Engineering Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
RotoMetals, San Francisco, Calif.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Sight Feed Generator Co., West Alexandria, O.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denver, Colo.

## FLUX, CAST IRON

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Klem Chemicals, Inc., Dearborn, Mich.
Lenk Mfg. Co., Franklin, Ky.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
London Chemical Co., Melrose Park, Ill.
Modern Engineering Co., St. Louis, Mo.
National Lead Co., New York, N. Y.
RotoMetals, San Francisco, Calif.
Sight Feed Generator Co., West Alexandria, O.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denvet, Colo.

## FLUX, COPPER

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Parrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemical Co., Chicago, Ill.
Lenk Mfg. Co., Franklin, Ky.
London Chemical Co., Melrose Park, Ill.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Waukegan, Ill.
RotoMetals, San Francisco, Calif.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Sight Feed Generator Co., West Alexandria, O.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denver, Colo.

## FLUX, GALVANIZED STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Handy & Harman, New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemical Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
Pfanstiehl Laboratories, Inc., Waukegan, Ill.
RotoMetals, San Francisco, Calif.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Tinit Mfg. Co., Inc., Denver, Colo.

## FLUX, INCONEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Superior Flux & Mfg. Co., Cleveland, O.

## FLUX, LEAD-TIN

Allen Co., Inc., L. B., Schiller Park, Ill.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Alpha Metals, Inc., Jersey City, N. J.
American Chemical Paint Co., Ambler, Pa.
American Products Corp., Chicago, Ill.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Parrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Klem Chemicals, Inc., Dearborn, Mich.
Lake Chemical Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
RotoMetals, San Francisco. Calif.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
Tinit Mfg. Co., Inc., Denver, Colo.

#### FLUX, MONEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ili. Alpha Metals, Inc., Jersey City, N. J. American Products Corp., Chicago, Ill. American Solder & Flux Co., Philadelphia, Pa. Anchor Metal Co., Inc., Brooklyn, N. Y. Chemetron Corp., Chicago, Ill. Division Lead Co., Summit, Ill. Farrelloy Co., Philadelphia, Pa. Handy & Harman, New York, N. Y. Johnson Mfg. Co., Inc., Mt. Vernon, Ia. RotoMetals, San Francisco, Calif. Ruby Chemical Co., Columbus, O. Superior Flux & Mfg. Co., Cleveland, O. Wolfe-Kote Co., Sheboygan, Wis.

## FLUX, NICKEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Chemetron Corp., Chicago, Ill.
Division Lead Co., Summit, Ill.
Farrelloy Co., Philadelphia, Pa.
Handy & Harman, New York, N. Y.
International Nickel Co., Inc., New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
RotoMetals, San Francisco, Calif.
Superior Flux & Mfg. Co., Cleveland, O.

## **FLUX, ROSIN**

Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Benson Co., Inc., Alex R., New Hartford, N. Y.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
Farrelloy Co., Philadelphia, Pa.
Pusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Johason Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Lake Chemicals Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Lead Co., New York, N. Y.
Pfanstichl Laboratories, Inc., Waukegan, Ill.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
United Wire & Supply Corp., Providence, R. I.

#### FLUX, SILVER

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Silver Co., Inc., Flushing, N. Y.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.
Dunton Co., M. W., Providence, R. I.
Engelhard Industries Inc., American Platinum and Silver Div.,
Newark, N. J.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Handy & Harman, New York, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Lake Chemicals Co., Chicago, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Lead Co., New York, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.
United Wire & Supply Corp., Providence, R. I.
Wabash Corp., Chicago, Ill.

### FLUX, STAINLESS STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Products Corp., Chicago, Ill.
American Solder & Plux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Arcos Corp., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Carajon Chemical Co., Inc., Fremont, Mich.
Chemetron Corp., Chicago, Ill.
Dunton Co., M. W., Providence, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Parrelloy Co., Philadelphia, Pa.
Pusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Handy & Harman, New York, N. Y.
Industrial Service Laboratories, Milwaukee, Wis.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Langsenkamp Co., F. H., Indianspolis, Ind.
Lenk Mfg. Co., Franklin, Ky.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
London Chemical Co., Melrose Park, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
National Lead Co., New York, N. Y.
Paul-Lewis Laboratories, Inc., Milwaukee, Wis.
RotoMetals, San Francisco, Calif.
Ruby Chemical Co., Columbus, O.
Superior Flux & Mfg. Co., Cleveland, O.
Wolfe-Kote Co., Sheboygan, Wis.

## FLUX, WELDING

Air Reduction Sales Co., New York, N. Y.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Schiller Park, Ill.
Aluminum Co. of America, Pittsburgh, Pa.
American Products Corp., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chemetron Corp., Chicago, Ill.
Dunton Co., M. W., Providence, R. I.
Farrelloy Co., Los Angeles, Calif.
Hobart Bros. Co., Troy, O.
International Nickel Co., Inc., New York, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson Mfg. Co., Inc., Mt. Vermon, Ia.
Lincoln Electric Co., Cleveland, O.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Midland Paint & Varnish Co., Cleveland, Ohio.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., West Alexandria, Ohio.
Superior Flux & Mfg. Co., Cleveland, Ohio.
Tinit Mfg. Co., Inc., Denver, Colo.
United Wire & Supply Corp., Providence, R. I.
Victor Equipment Co., San Francisco, Calif.
Wall Colmonoy Corp., Detroit, Mich.
Weldit, Inc., Detroit, Mich.

## FLUX, ZINC

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., Inc., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Linde Air Products Co., Div. Union Carbide & Carbon Corp.,
New York, N. Y.
National Lead Co., New York, N. Y.
Superior Flux & Mfg. Co., Cleveland, O.

#### FOLDERS

See Machines, Sheet Metal Working, Bar Folding

## FRAMES, CHIMNEY CAP

Adams Co., The, Dubuque, Ia. Levow, Inc., David, South Hackensack, N. J.

## FRAMES, DIFFUSER, GRILLE AND REGISTER

Barber-Colman Co., Rockford, Ill. Hart & Cooley Mfg. Co., Holland, Mich. Lima Register Co., Lima, O.

### FRAMES FOR HOLDING PANEL TYPE AIR FILTERS

Air-Maze Corp., Cleveland, O. Evans Corp., George, Moline, Ill. Research Products Corp., Madison, Wis.

### FRAMES, SHEET SUPPORT

See Supports, Sheet, Magnetic

## FRESHENERS, AIR

See Adsorbers, Odor, for Duct Systems; Compounds,
Air Freshening

## FUEL OIL DEODORIZERS

See Deodorizers, Fuel Oil

#### FUEL OIL FILTERS

See Filters, Fuel Oil

#### **FURNACE BLOWERS**

See Blowers; Blower-Filter Units; Blower-Washer Units

### FURNACE CEMENT

See Coment, Furnace

#### **FURNACE CLEANERS**

See Cleaners, Vacuum, Furnace

#### **FURNACE PIPE**

See Pipe and Fittings, Furnace

## **FURNACE PIPE FITTINGS AND ACCESSORIES**

See Pipe and Fittings, Furnace

#### **FURNACE REGULATORS**

See Regulators, Furnace Draft, Mechanical; Controls; Control Systems

### **FURNACE REPAIR PARTS**

See Parts, Repair, Furnace and Stove

## FURNACES, FORCED WARM AIR, COUNTERFLOW, GAS FIRED, STEEL

For Perimeter Heating Systems in Slab or Crawl Space Construction

Agricola Furnace Co., Inc., Gadsden, Ala. Airtemp Div., Chrysler Corp., Dayton, O. American Furnace Co., St. Louis, Mo.

American-Standard Air Conditioning Div., New York, N. Y. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Bard Mfg. Co., Bryan, O.
Bonair Div., Peerless Products Co., Philadelphia, Pa. Bryant Mfg. Co., Indianapolis, Ind. Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Campbell Heating Co., Des Moines, Ia. Carrier Corp., Syracuse, N. Y.
Central States Mig. Co., Inc., Arkansas City, Kans.
Century Engineering Corp., Cedar Rapids, Ia.
Chattanooga Royal Co., Chattanooga, Tenn.
Cobell Industries, Inc., Cleburne, Tex. Coleman Co., Inc., Wichita, Kans.
Columbia Burner Co., Toledo, O.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Consolidated Industries, Inc., Lafayette, Ind. Crane Co., Chicago, Ill. Custom-Aire Products Div., Pacific Industries, Inc., San Francisco, Calif. Day & Night Mfg. Co., La Puente, Calif.

Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Domestic Mfg. Co., Seattle, Wash.

Dornback Furnace & Foundry Co., Eastlake, O.

Dowagiac Steel Furnace Co., Dowagiac, Mich. Electric Furnace-Man, Inc., Emmaus, Pa. Empire Stove Co., Belleville, Ill. Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich. Monroe, Mich.

Fraser & Johnston Co., San Francisco, Calif.
Gaffers & Sattler, Los Angeles, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Green Colonial Inc., Des Moines, Ia.
Grove Furnace, Inc., Garden Grove, Calif.

Hall-Neal Furnace Co., Indianapolis, Ind.
Heat Controller, Inc., Jackson, Mich.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, O
Hess Co., The, Chicago, Ill.
Holly-General Co., Pasadena, Calif.
International Heater Co., Utica, N. Y. International Heater Co., Utica, N. Y.
International Oil Burner Co., St. Louis, Mo.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Johnson Furnace Co., The, Cleveland, O.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Kresky Mfg. Co., Inc., Petaluma, Calif. Leeson Air Conditioning Corp., Detroit, Mich. Lennox Industries Inc., Marshalltown, Ia. Lincoln Air Control Products, Inc., Swarthmore, Pa. Lundt, Inc., Ernest C., Little Falls, N. J. Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee, Wis. Meyer Furnace Co., Peoria, Ill. Miami Products, Inc., Miami, Okla. Midwest Heater Co., Omaha. Nebr. Monogram Industries, Inc., Quincy, Ill. Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee. Wis. Muncie Gear Works, Cordele, Ga. Muncie Gear Works, Cordele, Ga.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Oneida Heater Co., Inc., Oneida, N. Y.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Peerless Heater Co., Boyertown. Pa.
Penn Boiler Div., Pebboo Industries Inc., Lancaster, Pa. Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa. Perfection Industries, Div. of Hupp Corp., Cleveland, O. Premier Furnace Co., Dowagiac, Mich. Radiation Furnace Corp., Benton Harbor, Mich. Reif-Rexoil, Inc., Buffalo, N. Y.

Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J.

Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Sandberg Mfg. Co., Portland, Ore.
Schill Mfg. Co., Crestline, O.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Siegler Corp., Centralia, Ill.
Silent Automatic Products, Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southwest Mfg. Co., Aurora, Mo.
Steel City Furnace Corp., Springdale, Pa.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind.
Syncromatic Corp., Watertown, Wis.
Temco, Inc., Nashville, Tenn.
Temperature Appliance Mfg. Corp., Sebastopol, Calif.
Thermo-Products, Inc., North Judson, Ind.
Tjermlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., La Crosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union
Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
York, Shipley, Inc., York, Pa.
Zink Co., John, Tulsa, Okla.

### FURNACES, FORCED WARM AIR, COUNTERFLOW, OIL FIRED, CAST IRON

For Perimeter Heating Systems in Slab or Crawl Space Construction

Columbia Burner Co., Toledo, O. Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill. Hess Co., The, Chicago, Ill. International Oil Burner Co., St. Louis, Mo.

# FURNACES, FORCED WARM AIR, COUNTERFLOW, OIL FIRED, STEEL

For Perimeter Heating Systems in Slab or Crawl Space Construction

Airtemp Div., Chrysler Corp., Dayton, O.
American Furnace Co., St. Louis, Mo.
American Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O.
Auburn Burner Co., Edgerton, O.
Auburn Burner Co., Edgerton, O.
Auburn Boundry, Inc., Heating Div., Auburn, Ind.
Bard Mfg. Co., Bryan, O
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Coleman Co., Inc., Wichita, Kans.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendota, Ill.
Cox Mfg. Co., Ridgeville, Ind.
Crane Co., Chicago, Ill.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Domestic Mfg. Co., Seattle, Wash
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Electric Furnace-Man, Inc., Emmaus, Pa.
Federal Heating and Cooling Corp., Charlotte, N. C.
Floral City Heater Div., United States Air Conditioning Corp.,
Monroe, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.

General Automatic Products Corp., Baltimore, Md. General Electric Co., Air Conditioning Dept., Tyler, Tex. Green Colonial Inc., Des Moines, Ia. Gross Furnace Mfg. Co., Inc., Salem, Va. Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Hedina, O.
Home Furnace Co., Holland, Mich.
Descriptional Heater Co. Living N. riome rumace Co., Holland, Mich.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Johnson Furnace Co., The, Cleveland, O.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Leeson Air Conditioning Corp., Dataget Mich. Leeson Air Conditioning Corp., Detroit, Mich. Lennox Industries Inc., Marshalltown, Ia. Lincoln Air Control Products, Inc., Swarthmore, Pa. Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Lundt, Inc., Ernest C., Little Falls, N. J.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McPherson Furnace & Supply Co., Portland, Ore.
Metzger Machine & Engineering Co., Thermoflo Div., MilwauLinco Wife Co., A. Y., Dubuque, Ia. Meyer Furnace Co., Peoria, Ill. Monogram Industries, Inc., Quincy, Ill. Montag Inc., Portland, Ore. Morrison Steel Products, Inc., Buffalo, N. Y. Mortemp Corp., Seattle, Wash. Mueller Climatrol, Milwaukee, Wis. National-U. S. Radiator Corp., Johnstown, Pa. Niagara Furnace Div., Forest City Foundries Co., Cleveland, O. North Coast Mfg. Corp., Portland, Ore.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Peerless Heater Co., Boyertown, Pa.
Perfection Industries, Div., of Hupp Corp., Cleveland, Co. Perfection Industries, Div. of Hupp Corp., Cleveland, O. Quiet Automatic Burner Corp., Newark, N. J Radiation Furnace Corp., Benton Harbor, Mich. Reif-Rexoil, Inc., Buffalo, N. Y. Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, Roberts-Gordon Appliance Co., Buffalo, N. Y. Rossoe Míg. Co., Seattle, Wash. Round Oak Co., Inc., Dowagiac, Mich. Rybolt Heater Co., Ashland, O. Sandberg Mfg. Co., Portland, Ore. Schill Mfg. Co., Crestline, O. Sheet Metal Mfg. Co., Youngstown, O. Silent Automatic Products, Cleveland, O. Smith Corp., A. O., Permaglas Div., Kankakee, Ill. Steel City Furnace Corp., Springdale, Pa. Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Syncromatic Corp., Watertown, Wis. Thermo-Products, Inc., North Judson, Ind. Tjernlund Mfg. Co., St. Paul, Minn. Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Trane Co., La Crosse, Wis. Tuck-Aire Furnace Co., San Francisco, Calif. Typhoon Air Conditioning Co., Div. Hupp Corp., Brooklya, N.Y. N.Y.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union
Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O..
Wisconsin Burners Inc., Madison, Wis.
Wood Co., John Heater, & Tank Div., Conshohocken, Pa. Wood Co., John, Heater & Tank Div., Conshohocken, Pa. York Corp., Subsidiary of Borg-Warner Corp., York, Pa. York-Shipley, Inc., York, Pa. Zick Sheet Metal Works, Dearborn, Mich.

### FURNACES, FORCED WARM AIR, ELECTRIC

Residential only

Electric Heating Products Co., Phoenix, Ariz.

Heating Assurance, Inc., Spokane, Wash.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
Northwest Foundry & Furnace Co., Portland, Ore.
Rybolt Heater Co., Ashland, O.
Saffell Air Conditioning Co., Phoenix, Ariz.
Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind.

#### FURNACES, FORCED WARM AIR, FLOOR, GAS FIRED

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. General Air Conditioning Corp., Los Angeles, Calif. Kleer-Kleen Mfg. Co., Hayward, Calif. Temperature Appliance Mfg. Corp., Sebastopol, Calif. Trane Co., La Crosse, Wis.

#### FURNACES, FORCED WARM AIR, FLOOR, OIL FIRED

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. General Automatic Products Corp., Baltimore, Md. Gross Furnace Mfg. Co., Inc., Salem, Va. Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill. Kleer-Kleen Mfg. Co., Hayward, Calif. Quiet Automatic Burner Corp., Newark, N. J. Thermo Products, Inc., North Judson, Ind. Trane Co., La Crosse, Wis.

# FURNACES, FORCED WARM AIR, HIGHBOY, COAL FIRED, STEEL

For Basement or Utility Room Installations

American-Standard Air Conditioning Div., New York, N. Y.
Campbell Heating Co., Des Moines, Ia.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Hall-Neal Furnace Co., Indianapolis, Ind.
Lennox Industries Inc., Marshalltown, Iowa.
Montag Inc., Portland, Ore.
National-U.S. Radiator Corp., Johnstown, Pa.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Peerless Corp., Indianapolis, Ind.
Rybolt Heater Co., Ashland, O.
Sandberg Mfg. Co., Portland, Ore.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklya,
N. Y.

# FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, CAST IRON

For Basement or Utility Room Installations

Coroaire Heater Corp., Cleveland. O.
Dornback Furnace & Foundry Co., Eastlake, O.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
XXth Century Heating & Ventilating Co., Akron, O.

# FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, STEEL

For Basement or Utility Room Installations

Adams Furnace Corp., Paramount, Calif.
Agricols Furnace Co., Inc., Gadsden, Ala.
Airtemp Div., Chrysler Corp., Dayton, Ohio.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, Ohio.
Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Autogas Co., Bellwood, Ill.
Bard Mfg. Co., Bryan, Ohio.
Basford Mfg. Co., San Francisco, Calif.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Bryant Mfg. Co., Indianapolis, Ind.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Burn O Matic Gas Burner Co., Minneapolis, Minn. Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Century Engineering Corp., Cedar Rapids, Iowa.
Chattanooga Royal Co., Chattanooga, Tenn.
Cobell Industries, Inc., Cleburne, Tex.
Coleman Co., Inc., Wichita, Kans.
Columbia Burner Co., Toledo, O.
Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Mendota, Ill.

Consolidated Industries, Inc., Lafayette, Ind.

Cox Mfg. Co., Ridgeville, Ind.

Crane Co., Chicago, Ill.

Custom-Aire Products Div., Pacific Industries, Inc., San Carlos, Dalzen Mfg. Co., St. Clair, Mich.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y. Domestic Mfg. Co., Seattle, Wash.
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Electric Furnace-Man, Inc., Emmaus, Pa. Empire Stove Co., Belleville, Ill. Engineering Industries Co., Ltd., Toronto, Ont., Canada Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich. Monroe, Mich.

Fraser & Johnston Co., San Francisco, Calif.

Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo. Gaffers & Sattler, Los Angeles, Calif.

General Electric Co., Air Conditioning Dept., Tyler, Tex.

Glen-Aire Mfg. Co., Anaheim, Calif.

Green Colonial Inc., Des Moines, Iowa.

Grove Furnace, Inc., Garden Grove, Calif.

Hall Neal Evenace Co. Indiagnosis Ind. Hall-Neal Furnace Co., Indianapolis, Ind.

Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.

Harvey-Hill, Inc., St. Louis, Mo.

Heat Controller, Inc., Jackson, Mich. Heating Specialties Inc., Baltimore, Md. Heil-Quaker Corp., Nashville, Tenn. Henry Furnace Co., Medina, Ohio. Hess Co., Chicago, Ill. Holly-General Co., Pasadena, Calif. International Heater Co., Utica, N. Y. International Oil Burner Co., St. Louis, Mo. Iron Fireman Mfg. Co., Cleveland, Ohio.

Janitrol Heating and Air Conditioning Div., Surface Combus-Janitrol Heating and Air Conditioning Div., Surfaction Corp., Columbus, O. Jet-Heet, Inc., Englewood, N. J. Johnson Furnace Co., The, Cleveland, O. Kaustine Purnace & Tank Corp., Perry, N. Y. Keith Furnace Co., Des Moines, Ia.
Kilbury Mfg. Co., Inc., Lawndale, Calif. Kleer-Kleen Mfg. Co., Hayward, Calif. Kresky Mfg. Co., Inc., Petaluma, Calif. Leeson Air Conditioning Corp., Detroit, Mich. Lennox Industries Inc., Marshalltown, Iowa. Lincoln Air Control Products, Inc., Swarthmore, Pa. Lincoln Furnace Co., Inc., Hawthorne, N. J. Lundt, Inc., Ernest C., Little Falls, N. J. Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn. Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metro Metal Mfg. Co., Holt, Mich.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee, Wis. Meyer Furnace Co., Peoria, Ill. Miami Products, Inc., Miami, Okla. Midwest Heater Co., Omaha, Nebr. Monogram Industries, Inc., Quincy, Ill. Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee, Wis. National Thermatic Corp., Houston, Tex.

National-U. S. Radiator Corp., Johnstown, Pa.

Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.

North Coast Mfg. Corp., Portland, Ore.

Northwest Foundry & Furnace Co., Portland, Ore.

Norwalk Air Conditioning Corp., South Norwalk, Conn. Olsen Mfg. Co., C. A., Elyria, Ohio. Oneida Heater Co., Inc., Oneida, N. Y. Patten Co., J. V., Sycamore, Ill. Payne Co., The, La Puente, Calif. Peerless Corp., Indianapolis, Ind.

Pioneer Co., Los Angeles, Calif. Premier Furnace Co., Dowagiac, Mich. Radiant Burners, Inc., Lombard, III.
Radiant Burners, Inc., Lombard, III.
Radiation Furnace Corp., Benton Harbor, Mich.
Ran Appliance Corp., D. P., Compton, Calif.
Reif-Rexoil, Inc., Buffalo, N. Y.
Rheem Mfg. Co., Chicago, III.
Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J.
Roberts-Gordon Appliance Co., Buffalo, N. Y.
Round Oak Co., Dowagiac, Mich.
Abland Ohio. Rybolt Heater Co., Ashland, Ohio. Rybolt Heater Co., Ashland, Ohio.
Schill Mfg. Co., Crestline, O.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Siegler Corp., Centralia, Ill.
Silent Automatic Products, Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Smith, Inc., E. B., St. Petersburg, Fla.
Southwest Mfg. Co., Aurora, Mo.
Steel City Furnace Co., Springdale, Pa.
Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon Ind. Lebanon, Ind. Lebanon, Ind.

Sure Comfort Furnace Co., Forest Park, Ill.

Switson Industries Ltd., Welland, Ont., Canada

Syncromatic Corp., Watertown, Wis.

Temco, Inc., Nashville, Tenn.

Temperature Appliance Mfg. Corp., Sebastopol, Calif.

Thatcher Furnace Co., Garwood, N. J.

Thermo-Products, Inc., North Judson, Ind.

Tjernlund Mfg. Co., St. Paul, Minn.

Toridheet Div. Cleveland Steel Products Corp., Cleveland, Ohio.

Trane Co. LaCrosse Wis. Trane Co., LaCrosse, Wis. Tuck-Aire Furnace Co., San Francisco, Calif. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y. Victory Mfg. Co., Inc., Lancaster, N. Y. Viking Mfg. Co., Cleveland, Ohio. Waterair Co., Medford, Mass. Waterair Co., Medford, Mass.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union Williams Oil-O-Matic Heating Co., Div. of National U Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, Ohio.
Wisconsin Burners Inc., Madison, Wis.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
Wylie, W. O., Los Angeles, Calif.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
York-Shipley, Inc., York, Pa.
Zink Co., John, Tulsa, Okla.

# FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, STEEL

# For Basement or Utility Room Installations

Adams Furnace Corp., Paramount, Calif.
Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, Ohio.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, Ohio.
Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Autogas Co., Bellwood, Ill.
Bard Mfg. Co., Bryan, Ohio.
Benner-Nawman, Inc., Oakland, Calif.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Cary Mfg. Co., Waupaca, Wis.
Century Engineering Corp., Cedar Rapids, Iowa.
Cobell Industries, Inc., Cleburne, Tex.
Coleman Co., Inc., Wichita, Kans.
Columbia Burner Co., Toledo, O.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendota, Ill.
Crane Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Crown Home Equipment Co., Philadelphia, Pa.
Dalzen Mfg. Co., St. Clair, Mich.

Peerless Heater Co., Boyertown, Pa. Pennsylvania Furnace & Iron Co., Warren, Pa.

Perfection Industries, Div. of Hupp Corp., Cleveland, Ohio.

Delco Appliance Div., General Motors Corp., Rochester, N. Y. Domestic Mfg. Co., Seattle, Wash. Dornback Furnace & Foundry Co., Eastlake, O. Dowagiac Steel Furnace Co., Dowagiac, Mich. Ducane Heating Corp., Hawthorne, N. J. Electric Furnace-Man, Inc., Emmaus, Pa. Enico Products, Detroit, Mich. Federal Heating and Cooling Corp., Charlotte, N. C. Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich. Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo. General Automatic Products Corp., Baltimore, Md. General Electric Co., Air Conditiong Dept., Tyler, Tex. Gilbert & Barker Mfg. Co., West Springfield, Mass.

Green Colonial Inc., Des Moines, Iowa.
Gross Furnace Mfg. Co., Inc., Salem, Va.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Heating Specialties Inc., Baltimore, Md. Heil-Quaker Corp., Nashville, Tenn. Henry Furnace Co., Medina, Ohio. Herco Oil Burner Corp., Lancaster, Pa.

Hess Co., Chicago, Ill. Home Furnace Co., Holland, Mich. International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Janitrol Heating and Air Conditioning Div., Surface Combus-

Janitrol Heating and Air Conditioning Div., tion Corp., Columbus, O. Jet-Heet, Inc., Englewood, N. J. Johnson Co., S. T., Oakland, Calif. Johnson Furnace Co., The, Cleveland, O. Johnson Heater Corp., Cheisea, Mass. Kaustine Furnace & Tank Corp., Perry, N. Y. Keith Furnace Co., Des Moines, Ia. Kleer-Kleen Mfg. Co., Hayward, Calif. Kresky Mfg. Co., Petaluma, Calif. Kresky Mfg. Co., Petaluma, Calif. Kresno-Stamm Mfg. Co., Palisades Park, N. J. Laco Oil Burner Co., Inc., Griswold, Iowa. Leeson Air Conditioning Corp., Detroit, Mich. Lennox Industries Inc., Marshalltown, Iowa. Lincoln Air Control Products, Inc., Swarthmor

Lennox Industries Inc., Marshalltown, Iowa.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Lundt, Inc., Ernest C., Little Falls, N. J.
Majestic Co., Inc., Huntington, Ind.
Manville Boiler Co., Inc., Hackettstown, N. J.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McPherson Furnace & Supply Co., Portland, Ore.
Metro Metal Mfg. Co., Holt, Mich.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee. Wis.

Meyer Furnace Co., Peoria, Ill.

Miller-Church Industries, Eaton Rapids, Mich. Monogram Industries, Inc., Quincy, III. Montag Inc., Portland, Ore.

Morrison Steel Products, Inc., Buffalo, N. Y.
Mortemp Corp., Seattle, Wash.
Mueller Climatrol, Milwaukee, Wis.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Coast Mfg. Corp., Portland, Ore.

Northwest Foundry & Furnace Co., Portland, Ore. Norwalk Air Conditioning Corp., South Norwalk, Conn.

Olsen Mfg. Co., C. A., Elyria, Ohio. Oneida Heater Co., Inc., Oneida, N. Y. Patten Co., J. V., Sycamore, III Peerless Corp., Indianapolis, Ind.

Peerless Heater Co., Boyertown, Pa. Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa. Pennsylvania Furnace & Iron Co., Warren, Pa.

Perfection Industries, Div. of Hupp Corp., Cleveland, Ohio. Premier Furnace Co., Dowagiac, Mich.

Quiet Automatic Burner Corp., Newark, N. J. Radiation Furnace Corp., Benton Harbor, Mich. Reif-Rexoil, Inc., Buffalo, N. Y. Republic Products Co., Philadelphia, Pa.

Rheem Mfg. Co., Chicago, Ill.

Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen,

Rossoe Mfg. Co., Seattle, Wash. Round Oak Co., Inc., Dowagiac, Mich. Rybolt Heater Co., Ashland, Ohio. Sandberg Mfg. Co., Portland, Ore. Schill Mfg. Co., Crestline, O.

Sheet Metal Mfg. Co., Youngstown, O. Silent Automatic Products, Cleveland, O. Smith Corp., A. O., Permaglas Div., Kankakee, Ill. Standard Automatic Oil Burner Co., Newark, N. J. Steel City Furnace Co., Springdale, Pa. Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Lebanon, Ind.

Sure Comfort Furnace Co., Forest Park, Ill.

Syncromatic Corp., Watertown, Wis.

Thatcher Furnace Co., Garwood, N. J.

Thermo-Products, Inc., North Judson, Ind.

Tjernlund Mfg. Co., St. Paul, Minn.

Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio. Trane Co., LaCrosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brook-Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
Victory Mfg. Co., Inc., Lancaster, N. Y.
Viking Mfg. Corp., Cleveland, Ohio.
Waterair Co., Medford, Mass.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, Ohio. Wisconsin Burners Inc., Madison, Wis.
Wood Co., John, Heater & Tank Div., Conshohecken, Pa.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
York-Shipley, Inc., York, Pa.
Zick Sheet Metal Works, Dearborn, Mich.

### FURNACES, FORCED WARM AIR, HIGHBOY, COAL FIRED, STEEL

For Close Clearance (2 in. or less) Installations

National-U.S. Radiator Corp., Johnstown, Pa. Peerless Corp., Indianapolis, Ind.

### FURNACES, FORCED WARM AIR, HIGHBOY, GAS FIRED, STEEL

For Close Clearance (2 in. or less) Installations

Adams Furnace Co., Paramount, Calif.
Airtemp Div., Chrysler Corp., Dayton, O.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,

Columbus, O.

Bard Mfg. Co., Bryan, O.

Bonair Div., Peerless Products Co., Philadelphia, Pa.

Bryant Mfg. Co., Indianapolis, Ind.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Century Engineering Corp., Cedar Rapids, Ia.

Coleman Co., Inc., Wichita, Kans.

Conco Engineering Works, Heating and Air Conditioning Div.,

Mendota, Ill.

Mendota, Ill. Crane Co., Chicago, Ill. Custom-Aire Products Div., Pacific Industries, Inc., San Fran-

Custom-Aire Products Div., Pacific Industries, Inc., San Francisco, Calif.

Day & Night Mfg. Co., La Puente, Calif.

Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Dornback Furnace & Foundry Co., Eastlake, O.

Dowagiac Steel Furnace Co., Dowagiac, Mich.

Electric Furnace-Man, Inc., Emmaus, Pa.

Empire Stove Co., Belleville, Ill.

Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich.

France & Loborton Co., San Francisco, Calif.

Fraser & Johnston Co., San Francisco, Calif. Gaffers & Sattler, Los Angeles, Calif. Gaffers & Sattler, Los Angeles, Calif.
General Electric Co., Air Conditioning, Tyler, Tex.
Grove Furnace, Inc., Garden Grove, Calif.
Hayes Furnace & Mfg. & Supply Co., Los Angeles, Calif.
Heating Specialties Inc., Baltimore, Md.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, O.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combus-

tion Corp., Columbus, O.
Johnson Furnace Co., The, Cleveland, O.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Leeson Air Conditioning Corp., Detroit, Mich.
Lennox Industries Inc., Marshalltown, Ia. Majestic Co., Inc., Huntington, Ind.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Meyer Furnace Co., Peoria, Ill.
Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee, Wis. Muclier Climatrol, Milwaukee, Wis,
Muncie Gear Works, Cordele, Ga.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Coast Mfg. Corp., Portland, Ore.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Penn Boiler, Div., Pebboo Industries, Inc., Lancaster, Pa Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa. Perfection Industries, Div. of Hupp Corp., Cleveland, O. Rheem Mfg. Co., Chicago, Ill. Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, NI N. J.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Ryniker Steel Products Co., Billings, Mont.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Silent Automatic Products, Cleveland, O.
Smith Computer Computer Steel Computer Computer Steel Smith Corp., A. O., Permaglas Div., Kankakee, Ill. Southern Heater Corp., Compton, Calif Southwest Mfg. Co., Aurora, Mo. Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Lebanon, Ind.
Switson Industries Ltd., Welland, Ont., Canada
Syncromatic Corp., Wateriown, Wis.
Temperature Appliance Mfg. Corp., Sebastopol, Calif.
Thatcher Furnace Co., Garwood, N. J.
Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Tuck-Aire Furnace Co., San Francisco, Calif. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn. N. Y.
Victory Mfg. Co., Inc., Lancaster, N. Y.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va
Williams Oil-O-Matic Heating Co., Div. of National Union
Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wood Co., John. Heater & Tank Div., Conshohocken, Pa.
Zink Co., John. Tulsa. Okla. Zink Co., John, Tulsa, Okla.

# FURNACES, FORCED WARM AIR, HIGHBOY, OIL FIRED, STEEL

For Close Clearance (2 in. or less) Installations

Adams Furnace Co., Paramount, Calif. Adams Furnace Co., Paramount, Cair.
Airtemp Div., Chrysler Corp., Dayton, O.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.. Armstrong Furnace Co., Div. of National Union Electric Corp..
Columbus, O.
Bard Mfg. Co., Bryan, O.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Century Engineering Corp., Cedar Rapids, Ia.
Coleman Co., Inc., Wichita, Kans.
Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Crane Co., Chicago, Ill.
Delco Appliance Div., General Motors Corp., Rochester, N. Y. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Electric Furnace-Man, Inc., Emmaus, Pa.
Federal Heating and Cooling Corp., Charlotte, N. C.
Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Heil-Quaker Corp., Nashville, Tenn.
Henry Fumace Co., Medina, O. International Heater Co., Utica, N. Y. Iron Fireman Mfg. Co., Cleveland, O.

Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Johnson Furnace Co., The, Cleveland, O.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Montag Inc., Portland, Ore.
Morrison Steel Products Inc., Buffalo, N. Y. Montag Inc., Portland, Ore.

Morrison Steel Products, Inc., Buffalo, N. Y.

Mortemp Corp., Seattle, Wash.

Mueller Climatrol, Milwaukee, Wis.

National-U. S. Radiator Corp., Johnstown, Pa.

Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.

North Coast Mfg. Corp., Portland, Ore.

Olsen Mfg. Co., The C. A., Elyria, O.

Patten Co., J. V., Sycamore, Ill.

Peerless Corp., Indianapolis, Ind.

Peerfection Industries, Div. of Hupp Corp., Cleveland, O.

Rheem Mfg. Co., Chicago, Ill.

Roberts-Gordon Appliance Co., Buffalo, N. Y.

Rybolt Heater Co., Ashland, O.

Sandberg Mfg. Co., Portland, Ore.

Sheet Metal Mfg. Co., Youngstown, O.

Smith Corp., A. O., Permaglas Div., Kankakee, Ill.

Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Lebanon, Ind. Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y. Victory Mfg. Co., Inc., Lancaster, N. Y. Waterman-Waterbury Co., Minneapolis, Minn. Wayne Home Equipment Co., Inc., Fort Wayne, Ind. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, O. Wood Co., John, Heater & Tank Div., Conshohocken, Pa.

### FURNACES, FORCED WARM AIR, HORIZONTAL, GAS FIRED, STEEL

#### For Attic, Crawl Space or Suspended Installations

Agricola Furnace Co., Inc., Gadsden, Ala.
Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, O.
Allan Engineering Co., Dallas, Texas.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, Ohio.
Auburn Burner Co., Edgeston, O. Columbus, Ohio.

Auburn Burner Co., Edgerton, O.

Bard Mfg. Co., Bryan. O.

Bonair Div., Peerless Products Co., Philadelphia, Pa.

Bryant Mfg. Co., Indianapolis, Ind.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Carrier Corp., Syracuse, N. Y.

Central States Mfg. Co., Inc., Arkansas City, Kans.

Century Engineering Corp., Cedar Rapids, Ia.

Chattanooga Royal Co., Chattanooga, Tenn.

Chicago Steel Furnace Co., Chicago, Ill.

Cobell Industries, Inc., Cleburne, Tex.

Coleman Co., Inc., Wichita, Kans.

Columbis Specialty Co., Inc., Chevy Chase, Md.

Consolidated Industries, Inc., Lafayette, Ind.

Cox Mfg. Co., Ridgeville, Ind.

Custom-Air Products Div., Pacific Industries, Inc., San Francisco, Calif. cisco, Calif cisco, Calif.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Domestic Mfg. Co., Seattle, Wash
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Draco Co., Charlotte, N. C.
Electric Furnace-Man, Inc., Emmaus, Pa. Empire Stove Co., Belleville, Ill.
Engineering Industries Co., Ltd., Toronto, Ont., Canada
Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich. Fraser & Johnston Co., San Francisco, Calif.

Gaffers & Sattler, Los Angeles, Calif. General Automatic Products Corp., Baltimore, Md.
Great National Air Conditioning Corp., Oklahoma City, Okla.
Green Colonial Inc., Des Moines, Ia. Harvey-Hill, Inc., St. Louis, Mo. Harvey-Hill, Inc., St. Louis, Mo.
Hastings Air Cond. Co., Inc., Hastings, Nebr.
Hayes Furnace & Mfg. & Supply Co., Los Angeles, Calif.
Heat Controller, Inc., Jackson, Mich.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, Ohio.
Hess Co., The, Chicago, Ill.
Inland Heater Corp., St. Paul, Minn.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus. O. Janitol Heating and Air Conditioning Div tion Corp., Columbus, O. Jet-Heet, Inc., Englewood, N. J. Johnson Furnace Co., The, Cleveland, O. Johnson Heater Corp., Chelsea, Mass. Kleer-Kleen Mfg. Co., Hayward, Calif. Lennox Industries Inc., Marshalltown, Iowa, Lundt, Inc., Ernest C., Little Falls, N. J. Majestic Co., Inc., Huntington, Ind. Mayflower Air Conditioners, Inc., St. Paul, Minn. McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metzger Furnace & Engineering Co., Thermoflo Div., Milwaukee, Wis. Meyer Furnace Company, Peoria, Ill.
Miami Products, Inc., Miami, Okla.
Midwest Heater Co., Omaha, Nebr.
Monogram Industries, Inc., Quincy, Ill.
Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee, Wis. Muncie Gear Works, Cordele, Ga. National Heater Co., Inc., St. Paul, Minn. National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Norman Products Co., Columbus, Ohio
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
OverHead Heaters, Inc., Detroit, Mich. OverHead Heaters, Inc., Detroit, Mich.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Heater Co., Boyertown, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Premier Furnace Co., Dowagiac, Mich.
Reif-Rexoil, Inc., Buffalo, N. Y.
Reznor Mfg. Co., Mercer, Pa.
Rheem Mfg. Co., Chicago, Ill.
Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J. Richmond Plumbing Flattaces of N. J.

N. J.

Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southwest Mfg. Co., Aurora, Mo.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind.
Swaccomatic Corp.. Watertown, Wis. Syncromatic Corp., Watertown, Wis. Temco, Inc., Nashville, Tenn. Thatcher Furnace Co., Garwood, N. J. Inatcher Furnace Co., Garwood, N. J.
Thermobloc Div., Prat-Daniel Corp., South Norwalk, Conn.
Thermo-Products, Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., La Crosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y. Viking Mfg. Corp., Cleveland, O. Wayne Home Equipment Co., Inc., Fort Wayne, Ind. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, Ohio. Wisconsin Burners Inc., Madison, Wis. York Corp., Subsidiary of Borg-Warner Corp., York, Pa. York-Shipley, Inc., York, Pa. Zink Co., John, Tulsa, Okla.

# FURNACES, FORCED WARM AIR, HORIZONTAL, OIL FIRED, STEEL

For Attle, Crawl Space or Suspended Installations Air Conditioning Engineering Co., Cambridge, Mass. Airtemp Div., Chrysler Corp., Dayton, O. American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Auburn Burner Co., Edgerton, O.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Bard Mfg. Co., Bryan, O.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Bonair Div., Peerless Products Co., Philadelphia, Pa. Bonair Div., Peerless Products Co., Philadelphia, Pa. Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Columbia Burner Co., Toledo, O.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Cox Mfg. Co., Ridgeville, Ind.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Domestic Mfg. Co., Seattle, Wash.
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Electric Furnace-Man, Inc., Emmaus, Pa.
Federal Heating and Cooling Corp., Charlotte, N. C.
Floral City Heater Div., United States Air Conditioning Corp., Federal Heating and Cooling Corp., Charlotte, N. C. Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich.

Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo. General Automatic Products Corp., Baltimore, Md. General Electric Co., Air Conditioning Dept., Tyler, Tex. Gilbert & Barker Mfg. Co., Roditioning Dept., Tyler, Tex. Gilbert & Barker Mfg. Co., West Springfield, Mass. Green Colonial Inc., Des Moines, Ia. Gross Furnace Mfg. Co., Inc., Salem, Va.

Hall-Neal Furnace Co., Inc., Salem, Va.

Hall-Neal Furnace Co., Indianapolis, Ind.

Heil-Quaker Corp., Nashville, Tenn.

Henry Furnace Co., Medina, O.

Herco Oil Burner Corp., Lancaster, Pa.

Hess Co., The, Chicago, Ill.

Inland Heater Corp., St. Paul, Minn.

International Heater Co., Utica, N. Y.

Iron Fireman Mfg. Co., Cleveland, O.

Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.

Jet-Heet, Inc., Englewood, N. J.

Johnson Furnace Co., The, Cleveland, O.

Johnson Heater Corp., Chelsea, Mass.

Kaustine Furnace & Tank Corp., Perry, N. Y.

Kleer-Kleen Mfg. Co., Hayward, Calif.

Kresno-Stamm Mfg. Co., Palisades Park, N. J.

Lennox Industries Inc., Marshalltown, Ia.

Lincoln Air Control Products, Inc., Swarthmore, Pa.

Lincoln Furnace Co., Inc., Hawthorne, N. J.

Lundt, Inc., Ernest C., Little Falls, N. J.

Mayflower Air Conditioners, Inc., St. Paul, Minn.

McDonald Mfg. Co., A. Y., Dubuque, Ia. Floral City Heater Div., United States Air Conditioning Corp., Lundt, Inc., Ernest C., Little Falls, N. J.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McPherson Furnace & Supply Co., Portland, Ore.
Monogram Industries, Inc., Quincy, Ill.
Montag Inc., Portland, Ore.
Morrison Steel Products, Inc., Buffalo, N. Y.
Mortemp Corp., Seattle, Wash. Mueller Climatrol, Milwaukee, Wis. Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
OverHead Heaters, Inc., Detroit, Mich.
Patten Co., I. V., Svamore. Ill. Petretea Co., J. V., Sycamore, Ill.
Peerless Heater Co., Boyertown, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Quiet Automatic Burner Corp., Newark, N. J.
Reif-Rexoil, Inc., Buffalo, N. Y. Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J. Rybolt Heater Co., Ashland, O. Sandberg Mfg. Co., Portland, Ore. Sheet Metal Mfg. Co., Youngstown, O. Silent Automatic Products, Cleveland, O. Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Stewart-Warner Corp., Heating and Air Conditioning Div., Syncromatic Corp., Watertown, Wis. Thatcher Furnace Co., Garwood, N. J. Thermobloc Div., Prat-Daniel Corp., South Norwalk, Conn. Thermo-Products, Inc., North Judson, Ind.

Tjernlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Trane Co., La Crosse, Wis.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Ft. Wayne, Ind.
Weatherall Engineers, Inc., Providence, R. I.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wisconsin Burners Inc., Madison, Wis.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

#### FURNACES, FORCED WARM AIR, LOWBOY, COAL FIRED, CAST IRON

#### For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill.
Green Colonial Inc., Des Moines, Iowa.
Home Furnace Co., Holland, Mich.
Majestic Co., Inc., Huntington, Ind.
Montag Inc., Portland, Ore.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Premier Furnace Co., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Skinner Heating & Ventilating Co. Div. Young Sales Corp., St.
Louis, Mo.
Spear Stove & Heater Co., James, Philadelphia, Pa.
XXth Century Heating & Ventilating Co., Akron, Ohio.

# FURNACES, FORCED WARM AIR, LOWBOY, COAL FIRED, STEEL

#### For Basement Installations

American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, Ohio.
Automatic Solid Fuels Equipment Co., Indianapolis, Ind.
Bard Mfg. Co., Bryan, Ohio.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Mones, Iowa.
Crane Co., Chicago, Ili.
Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Electric Furnace-Man, Inc., Emmaus, Pa.
Floral City Heater Div., United States Air Conditioning Corp.,
Monroe, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Furblo Co., Hermansville, Mich.
Hall-Neal Furnace Co., Indianapolis, Ind.
Henry Furnace Co., Medina, Ohio.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Keith Furnace Co., Des Moines, Iowa.
Lennox Industries Inc., Marshalltown, Iowa.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Meyer Furnace Co., Peoria, Ill.
Montag Inc., Portland, Ore.
National Heater Co., Inc., St. Paul, Minn.
National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Northwest Foundry & Furnace Co., Portland, Ore.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Peerless Corp., Indianapolis, Ind.
Premier Furnace Co., C. A., Elyria, Ohio.
Oneida Heater Co., G., Icc., Oneida, N. Y.
Peerless Corp., Indianapolis, Ind.
Premier Go., C. A., Elyria, Ohio.
Oneida Heater Co., Co., Cincinnati, Ohio.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Inc., of Ind., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Sandberg Mfg. Co., Crestline, Ohio.
Synchromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.

Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklys, N. Y.
Viking Mfg. Corp., Cleveland, Ohio.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, Ohio.

# FURNACES, FORCED WARM AIR, LOWBOY, GAS FIRED, CAST IRON

#### For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill. Coroaire Heater Corp., Cleveland, O. Crane Co., Chicago, Ill. Dornback Furnace & Foundry Co., Eastlake, O. Green Colonial Inc., Des Moines, Iowa. Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill. Niagara Furnace Div., Forest City Foundries Co., Cleveland, O. Pennsylvania Furnace & Iron Co., Warren, Pa. Rybolt Heater Co., Ashland, Ohio. Sandberg Mfg. Co., Portland, Ore. Sheet Metal Mfg. Co., Youngstown, O. Thatcher Furnace Co., Garwood, N. J. Victory Mfg. Co., Inc., Lancaster, N. Y. XXth Century Heating & Ventilating Co., Akron, Ohio.

# FURNACES, FORCED WARM AIR, LOWBOY, GAS FIRED, STEEL

#### For Basement Installations

Airtemp Div., Chrysler Corp., Dayton, Ohio. Aladdin Heating Corp., San Leandro, Calif. Allan Engineering Co., Dallas, Texas. American Furnace Co., St. Louis, Mo. American-Standard Air Conditioning Div., New York, N. Y. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, Ohio. Auburn Burner Co., Auburn, Ind. Auburn Foundry, Inc., Heating Div., Auburn, Ind. Autogas Co., Bellwood, Ill. Bard Mfg. Co., Bryan, Ohio.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Burn O Matic Gas Burner Co., Minneapolis, Minn. Burn O Matic Gas Burner Co., Minneapolis, Minn. Campbell Co., B. K., Kansas City, Mo. Campbell Heating Co., Des Moines, Iowa. Carrier Corp., Syracuse, N. Y. Central States Mfg. Co., Inc., Arkansas City, Kans. Century Engineering Corp., Cedar Rapids, Iowa. Cirklair Products Div., Folsom Co., Inc., Dallas, Tex. Coleman Foodist Sirv., Wichita, Kans.
Columbia Burner Co., Toledo, O.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Consolidated Industries, Inc., Lafayette, Ind.
Dalzen Mfg. Co., St. Clair, Mich.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dornback Furnace & Foundry Co., Eastlake, Ohio.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Dowagiac Co. Bitthward. Par. Dualtron Co., Pittsburgh, Pa. Electric Furnace-Man, Inc., Emmaus, Pa. Empire Stove Co., Belleville, Ill. Engineering Industries Co., Ltd., Toronto, Ont., Canada Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich. Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md. Fraser and Johnston Co., San Francisco, Calif. Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo. Green Colonial Inc., Des Moines, Iowa.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Harvey-Hill, Inc., St. Louis, Mo. Heating Specialties Inc., Baltimore, Md. Heil-Quaker Corp., Nashville, Tenn. Henry Furnace Co., Medina, Ohio. Hess Co., Chicago, Ill. International Heater Co., Utica, N.Y.

Iron Fireman Mig. Co., Cleveland, Ohio.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Jet-Heet, Inc., Englewood, N. J.

Jet-Heet, Inc., Englewood, N. J.
Johnson Furnace Co., The, Cleveland, O.
Johnson Heater Corp., Chelsea, Mass.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Keith Furnace Co., Des Moines, Iowa.
Lesson Air Conditioning Corp., Detroit, Mich.
Lennox Industries Inc., Marshalltown, Iowa.
Lincoln Air Control Products, Inc. Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Lundt, Inc., Ernest C., Little Falls, N. J.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metro Metal Mfg. Co., Holt, Mich.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee, Wis.
Meyer Furnace Co., Peoria, Ill.

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Meyer Furnace Co., Peoria, Ill.
Miami Products, Inc., Miami, Okla.
Midwest Heater Co., Omaha, Nebr.
Monogram Industries, Inc., Quincy, Ill.
Morrison Steel Products, Inc., Buffalo, N. Y.
Mortemp Furnace Div., Witte-Toledo Co., Toledo, O.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Heater Co., Boyertown, Pa.

Peerless Corp., Indianapolis, Ind.
Peerless Heater Co., Boyertown, Pa.
Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, Ohio.
Premier Furnace Co., Dowagiac, Mich.
Radiation Furnace Corp., Benton Harbor, Mich.
Rapid Heat Corp., Detroit, Mich.

Rapid Heat Corp., Detroit, Mich.
Ray Oil Burner Co., San Francisco, Calif.
Reif-Rexoil, Inc., Buffalo, N. Y.
Rheem Mfg. Co., Chicago, Ill.
Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen,

Richmond Plumbing Fixtures Div., Rheem Mtg. Co., Metuchen, N. J.

Roberts-Gordon Appliance Corp., Buffalo, N. Y.

Round Oak Co., Inc., Dowagiac, Mich.

Rybolt Heater Co., Ashland, Ohio.

Ryniker Steel Products Co., Billings, Mont.

Schill Mfg. Co., Crestline, Ohio.

Sheet Metal Mfg. Co., Youngstown, O.

Silent Automatic Products, Cleveland, O.

Smith Corp., A. O., Permaglas Div., Kankakee, Ill.

Southwest Mfg. Co., Aurora, Mo.

Steel City Furnace Co., Springdale, Pa.

Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind.

anon, Ind.

Sure Comfort Furnace Co., Forest Park, III. Switson Industries Ltd., Welland, Ont., Canada Syncromatic Corp., Watertown, Wis.

Temco, Inc., Nashville, Tenn. Thatcher Furnace Co., Garwood, N. J.
Thermo-Products, Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.

Tuck-Aire Furnace Co., San Francisco, Calif. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn.

N. Y. Utility Appliance Corp., Los Angeles, Calif. Victory Mfg. Co., Inc., Lancaster, N. Y. Viking Mfg. Corp., Cleveland, Ohio. Waterair Co., Medford, Mass. Waterman-Waterbury Co., Minneapolis, Minn.

Wayne Home Equipment Co., Fort Wayne, Ind.
Westinghouse Electric Corp., Air Conditioning Div., Staunton,

Va.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, Ohio.
Wisconsin Burners Inc., Madison, Wis.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

York-Shipley, Inc., York, Pa.

Zick Sheet Metal Works, Dearborn, Mich. Zink Co., John, Tulsa, Okla.

# FURNACES, FORCED WARM AIR, LOWBOY, OIL FIRED, CAST IRON

For Basement Installations

American Foundry & Furnace Co., Bloomington, Ill.
Columbia Burner Co., Toledo, O.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Livingston, Inc., Marshall, Mich.
Montag, Inc., Portland, Ore.
Sandberg Mfg. Co., Portland, Ore.
Sheet Metal Mfg. Co., Youngstown, O.
XXth Century Heating & Ventilating Co., Akron, Ohio.

### FURNACES, FORCED WARM AIR, LOWBOY, OIL FIRED, STEEL

For Basement Installations

Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, Ohio.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, Ohio.

Auburn Burner Co., Auburn, Ind. Auburn Foundry Inc., Heating Div., Auburn, Ind. Autogas Co., Bellwood, Ill.

Autogas Co., Bellwood, III.

Bard Mfg. Co., Bryan, Ohio.

Besser Furnace and Air Conditioning Corp., Charlotte, N. C.

Bonair Div., Peerless Products Co., Philadelphia, Pa.

Bryant Mfg. Co., Indianapolis, Ind.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Campbell Co., B. K., Kansas City, Mo.

Campbell Heating Co., Des Moines, Iowa. Campbell Heating Co., Des Moines, Iowa.
Carrier Corp., Syracuse, N. Y.
Cary Mfg. Co., Waupaca, Wis.
Century Engineering Corp., Cedar Rapids, Iowa.
Chicago Steel Furnace Co., Chicago, Ill.
Coleman Co., Inc., Wichita, Kans.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendot. Ill.

Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill.
Cox Mfg. Co., Ridgeville, Ind.
Crane Co., Chicago, Ill.
Crown Home Equipment Co., Philadelphia, Pa.
Dalzen Mfg. Co., St. Clair, Mich.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Domestic Mfg. Co., Seattle. Wash.
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Dualtron Co., Pittsburgh, Pa. (Equipped with electrostatic filter)
Ducane Heating Corp., Hawthorne, N. J.
Electric Furnace-Man, Inc., Emmaus, Pa.
Electrol Burner Mfg. Co., Inc., Rutherford, N. J.
Engineering Industries Co., Ltd., Toronto, Ont., Canada.

Engineering Industries Co., Ltd., Toronto, Ont., Canada. Enico Products, Detroit, Mich.

Federal Heating and Cooling Corp., Charlotte, N. C. Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich.

Monroe, Mich.
Fluid Heat Div. Anchor Post Products, Inc., Baltimore, Md.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Furblo Co., Hermanville, Mich.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Green Colonial Inc., Des Moines, Iowa.
Gross Furnace Mfg. Co., Inc., Salem, Va.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Heating Specialties Inc., Baltimore, Md.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, Ohio.
Herco Oil Burner Corp., Lancaster, Pa.
Hess Co., Chicago, Ill.
Home Furnace Co., Holland, Mich.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.

tion Corp., Columbus, O.

Jet-Heet, Inc., Englewood, N. J.
Johnson Co., S. T., Oakland, Calif., and Philadelphia, Pa.
Johnson Furnace Co., The, Cleveland, O.
Johnson Heater Corp., Chelsea, Mass.
Jungers Stove & Range Co., Grafton, Wis.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Keith Furnace Co., Des Moines, Iowa.
Kleer-Kleen Mig. Co., Hayward, Calif.
Kresno-Stamm Mig. Co., Palisades Park, N. J.
Leeson Air Conditioning Corp., Detroit, Mich.
Lennox Industries Inc., Marshalltown, Iowa,
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J. Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Lundt, Inc., Ernest C., Little Falls, N. J.
Luty Furnace Mfg. Co., Detroit, Mich.
Majestic Co., Inc., Huntington, Ind.
Manville Boiler Co., Inc., Hackettstown, N. J.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Is.
McPherson Furnace & Supply Co., Portland, Ore.
Metro Metal Mfg. Co., Holt, Mich.
Mctzger Machine & Engineering Co., Thermoflo Div., Milwaukee,
Wis Meyer Furnace Co., Peoria, Ill. Meyer Furnace Co., Peoria, Ill.
Miller-Church Industries, Eaton Rapids, Mich.
Monogram Industries, Inc., Quincy, Ill.
Montag Inc., Portland, Ore.
Morrison Steel Products, Inc., Buffalo, N. Y.
Mortemp Corp., Seattle, Wash.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
North Cost. Mic. Corp. Perfland Ore. North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn. Norwalk Air Conditioning Corp., South Norwalk, Conn.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Peerless Heater Co., Boyertown, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, Ohio.
Premier Furnace Co., Dowagiac, Mich. Premium Coal & Oil Co., Cincinnati, Ohio.
Queen Products Div., King-Seeley Corp., Albert Lea, Minn.
Quick Furnace & Supply Co., Des Moines, Iowa. Quiet Automatic Burner Corp., Newark, N. J Quiet Automatic Burner Corp., Newark, N. J.
Radiation Furnace Corp., Benton Harbor, Mich.
Ray Oil Burner Co., San Francisco, Calif.
Rei-Rexoil, Inc., Buffalo, N. Y.
Republic Products Co., Philadelphia, Pa.
Rheem Mfg. Co., Chicago, Ill.
Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J. Roberts-Gordon Appliance Co., Buffalo, N. Y.
Rosebraugh Co., W. W., Salem, Ore.
Rossoe Míg. Co., Seattle, Wash.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio. Sandberg Mfg. Co., Portland, Ore. Schill Mfg. Co., Crestline, Ohio. Sheet Metal Mfg. Co., Youngstown, O. Sheet Metal Mig. Co., Youngstown, O.
Siebring Mfg. Co., George, Ia.
Silent Sioux Corp., Orange City, Iowa.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Standard Automatic Oil Burner Co., Newark, N. J.
Steel City Furnace Co., Springdale, Pa.
Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Sure Comfort Furnace Co., Forest Park, Ill. Sure Comfort Furnace Co., Forest Park, Ill.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Thermo-Products Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio
Tru-Heet Co., Trenton, N. J.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y. N. Y. United Air Heaters, Inc., Seattle, Wash. United Air Heaters, Inc., Seattle, Wash.
Victory Mfg. Co., Inc., Lancaster, N. Y.
Viking Mfg. Corp., Cleveland, Ohio.
Waterair Co., Medford, Mass.
Waterman-Waterbury Co., Minneapolis, Minn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Weatherall Engineers, Inc., Providence, R. I.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.

Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, Ohio. Wisconsin Burners Inc., Madison, Wis. Wood Co., John, Heater & Tank Div., Conshohocken, Pa. York Corp., Subsidiary of Borg-Warner Corp., York, Pa. York-Shipley, Inc., York, Pa. Zick Sheet Metal Works, Dearborn, Mich.

#### FURNACES, FORCED WARM AIR, WALL, GAS FIRED

Appliance Div., Motor Wheel Corp., Lansing, Mich. Chattanooga Royal Co., Chattanooga, Tenn. Coroaire Heater Corp., Cleveland, O. Day & Night Mfg. Co., La Puente, Calif. Empire Stove Co., Belleville, Ill. Holly-General Co., Pasadena, Calif. Monogram Industries, Inc., Quincy, Ill. Morrison Steel Products, Inc., Buffalo, N. Y. Mueller Climatrol, Milwaukee, Wis. Ohio Foundry & Mfg. Co., Steubenville, O. Payne Co., The, La Puente, Calif. Perfection Industries Div. of Hupp Corp., Cleveland, O. Samuel Stamping & Enameling Co., Chattanooga, Tenn. Southern Heater Corp., Compton, Calif. Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind.
Willams Furnace Co., Buena Park, Calif.

### FURNACES, FORCED WARM AIR, WALL, OIL FIRED

Appliance Div., Motor Wheel Corp., Lansing, Mich.
Heil-Quaker Corp., Nashville, Tenn.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Monogram Industries, Inc., Quincy, Ill.
Morrison Steel Products, Inc., Buffalo, N.Y.
Mueller Climatrol, Milwaukee, Wis.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind.

# FURNACES, FORCED WARM AIR, WITH DOMESTIC HOT WATER SUPPLY, GAS FIRED, STEEL

Waterair Co., Medford, Mass.

### FURNACES, FORCED WARM AIR, WITH DOMESTIC HOT WATER SUPPLY, OIL FIRED, STEEL

Waltham Oil Burner Co., Inc., East Boston, Mass. Waterair Co., Medford, Mass.

# FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY (DIRECT FIRED, FOR LOCATION IN SPACE TO BE HEATED AND WITHOUT DUCT DISTRIBUTION)

See Heaters, Air, Direct Fired

### FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, COAL FIRED, CAST IRON

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR. FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

American Foundry & Furnace Co., Bloomington, Ill. MaGirl Foundry & Furnace Co., Bloomington, Ill.

# FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, COAL FIRED, STEEL

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR. FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

Air Conditioning Engineering Co., Cambridge, Mass.

Armstrong Furnace Co., Div. of National Union Electric Corp.,

Columbus, O.,

Campbell Heating Co., Des Moines, Ia.

Daniels Mfg. Co., Sam, Hardwick, Vt. Domestic Mfg. Co., Seattle, Wash. Floral City Heater Div., United States Air Conditioning Corp., Monroe, Mich.
Lennox Industries Inc., Marshalltown, Ia.
Mammoth Furnace Co., Minneapolis, Minn.
Meyer Furnace Co., Peoria, Ill.
National Heater Co., Inc., St. Paul, Minn. National-U.S. Radiator Corp., Johnstown, Pa. Northwest Foundry & Furnace Co., Portland, Ore. Peerless Corp., Indianapolis, Ind Reund Oak Co., Inc., Dowagiac, Mich.
Sandberg Mfg. Co., Portland, Ore.
Syncromatic Corp., Watertown, Wis.
Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

# FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, GAS FIRED, CAST IRON

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR. FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

American Foundry & Furnace Co., Bloomington, Ill. MaGirl Foundry & Furnace Co., Bloomington, Ill.

### FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, GAS FIRED, STEEL

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR, FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

Air Conditioning Engineering Co., Cambridge, Mass. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Arkos Mfg. Co., Detroit, Mich. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Columbus, O.
Auburn Burner Co., Edgerton, O.
Bryant Mfg. Co., Indianapolis, Ind.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Chicago Steel Fumace Co., Chicago, Ill. Dowagiac Steel Furnace Co., Dowagiac, Mich. Fraser & Johnston Co., San Francisco, Calif. Green Colonial Inc., Des Moines, Ia.
Inland Heater Corp., St. Paul, Minn.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Johnson Heater Corp., Chelsea, Mass. Lee Corp., Wilmington, Del Lennox Industries Inc., Marshalltown, Ia. Majestic Co., Inc., Huntington, Ind. Mammoth Furnace Co., Minneapolis, Minn. Meyer Furnace Co., Peoria, Ill. Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U.S. Radiator Corp., Johnstown, Pa.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Premier Furnace Co., Dowagiac, Mich.
Premier Furnace Co., Dowagiac, Mich. Premier Furnace Co., Dowagiac, Mich.
Republic Products Co., Philadelphia, Pa.
Reznor Mfg. Co., Mercer, Pa.
Round Oak Co., Dowagiac, Mich.
Syncromatic Corp., Watertown, Wis.
Thermo-Products, Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Tuck-Aire Furnace Co., San Francisco, Calif.
Waterman-Waterbury Co., Minneapolis, Minn.
York-Shipley, Inc. Vork. Pa.

# FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, OIL FIRED, CAST IRON

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR. FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

Air Conditioning Engineering Co., Cambridge, Mass. American Foundry & Furnace Co., Bloomington, Ill. Campbell Co., E. K., Kansas City, Mo.

York-Shipley, Inc., York, Pa.

Dowagiac Steel Furnace Co., Dowagiac, Mich. International Heater Co., Utica, N. Y. Keith Furnace Co., Des Moines, Ia. MaGirl Foundry & Furnace Co., Bloomington, Hl.

### FURNACES, FORCED WARM AIR, 400,000 BTUH AND UP CAPACITY, OIL FIRED, STEEL

(EXCLUSIVELY FOR DUCT DISTRIBUTION OF AIR. FOR SPACE HEATING EXCLUSIVELY SEE HEATERS, AIR, DIRECT FIRED)

Air Conditioning Engineering Co., Cambridge, Mass. Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Arkos Mfg. Co., Detroit, Mich. Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Columbus, O.
Auburn Burner Co., Edgerton, O.
Bard Mfg. Co., Bryan, O.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia. Chicago Steel Furnace Co., Chicago, Ill. Crane Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Domestic Mfg. Co., Seattle, Wash.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Inland Heater Co., St. Paul, Minn.
Johnson Heater Corp., Chelsea, Mass.
Keith Furnace Co., Des Moines, Ia. Lee Corp., Wilmington, Del. Lennox Industries Inc., Marshalltown, Ia. Majestic Co., Inc., Huntington, Ind. Mammoth Furnace Co., Minneapolis, Minn. Mammoth Furnace Co., Minneapolis, Minn.
McPherson Furnace & Supply Co., Portland, Ore.
Meyer Furnace Co., Peoria, III.
Montag Inc., Portland, Ore.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U.S. Radiator Corp., Johnstown, Pa.
North Coast Mfg. Corp., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Norwalk Air Conditioning Corp., South Norwalk, Conn.
Patten Co., J. V., Sycamore, III.
Peerless Corp., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa. Peerless Corp., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Premier Furnace Co., Dowagiac, Mich.
Quiet Automatic Burner Corp., Newark, N. J.
Reznor Mfg. Co., Mercer, Pa.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Dowagiac, Mich.
Sandberg Mfg. Co., Portland, Ore.
Syncromatic Corp., Watertown, Wis.
Thermo-Products, Inc., North Judson, Ind.
Tjernlund Mfg. Co., St. Paul, Minn.
Tuck-Aire Furnace Co., San Francisco, Calif.
Waterman-Waterbury Co., Minneapolis. Minn. Waterman-Waterbury Co., Minneapolis, Minn. Weatherall Engineers, Inc., Providence, R. I. York-Shipley, Inc., York, Pa.

### **FURNACES, SOLDERING**

Aeroil Products Co., Inc., South Hackensack, N. J. Aerol Products Co., Inc., South Hackensack, N. Bernz Co., Otto, Rochester, N. Y. Clayton & Lambert Mfg. Co., Louisville, Ky. Fieser Co., F. J., New York, N. Y. Goss Gas Inc., Glenshaw, Pa. Hones, Inc., Charles A., Baldwin, N. Y. (Gas). Inland Steel Products Co., Milwaukee, Wis. Insto-Gas Corp., Detroit, Mich. (Gas) Johnson Gas Appliance Co., Cedar Rapids, Iowa. Kenetzer & Co., Frank. Chicago, Ill. Moncrief Lenoir Mfg. Co., Houston, Tex.

Mutual Liquid Gas & Equipment Co., Gardena, Calif.

New Delphos Mfg. Co., Delphos, O. (Charcoal)

Ransome Torch & Burner Co., Emeryville, Calif. Reiner & Campbell Co., Inc., Newark, N. J.
Reliable Mach. & Mfg. Co., Inc., Cedar Rapids, Iowa.
Sanders, J. A., Fulton, N. Y. Unique Mfg. Co., Inc., Chicago, Ill. (Gasoline, Kerosene).

Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc.,
Danvers, Mass. (Electric) Weldit, Inc., Detroit, Mich. Westinghouse Electric Corp., Pittsburgh, Pa.

# FURNACES, WARM AIR, GRAVITY, COAL FIRED,

Agricola Furnace Co., Inc., Gadsden, Ala.
American Foundry & Furnace Co., Bloomington, Ill.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Green Colonial Inc., Des Moines, Iowa.
Livingston, Inc., Marshall, Mich.
Montag Inc., Portland, Ore.
Premier Furnace Co., Dowagiac, Mich.
Skinner Heating & Ventilating Co. Div. Young Sales Corp., St.
Louis, Mo.
Spear Stove & Heater Co., James, Philadelphia, Pa.
Thatcher Furnace Co., Garwood, N. J.
Union Mfg. Co., Inc., Boyertown, Pa.
XXth Century Heating & Ventilating Co., Akron, Ohio.

# FURNACES, WARM AIR, GRAVITY, COAL FIRED,

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, Ohio.
Bard Mfg. Co., Bryan, Ohio.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Campbell Heating Co., Des Moines, Iowa.
Crane Co., Chicago, Ill.
Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Floral City Heater Div., United States Air Conditioning Corp.,
Monroe, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Furblo Co., Hermansville, Mich.
Hall-Neal Furnace Co., Indianapolis, Ind.
Henry Furnace Co., Medina, Ohio.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
Meyer Furnace Co., Peoria, Ill.
Montag Inc., Portland, Ore.
National-U. S. Radiator Corp., Johnstown, Pa.
Northwest Foundry & Furnace Co., Portland, Ore.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Peerless Corp., Indianapolis, Ind.
Premier Furnace Co., Dowagiac, Mich.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Inc., of Ind., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Sandberg Mfg. Co., Portland, Ore.
Schill Mfg. Co., Crestline, Ohio.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio.
Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union

# FURNACES, WARM AIR, GRAVITY, ELECTRIC

Heating Assurance, Inc., Spokane, Wash. Martin Stamping & Stove Co., Huntsville, Ala. Meier Electric & Machine Co., Inc., Indianapolis, Ind. Wesix Electric Heater Co., San Francisco, Calif.

Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, Ohio.

# FURNACES, WARM AIR, GRAVITY, FLOOR, GAS

Advance Furnace Co., Wichita, Kans.
Agricola Furnace Co., Inc., Gadsden, Ala.
American Ideal-Aire Corp., Garden City, N. Y.
Autogas Co., Bellwood, Ill.
Benner-Nawman, Inc., Oakland, Calif.
Bryant Mfg. Co., Indianapolis, Ind.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Coleman Co., Inc., Wichita, Kans.
Draco Co., Charlotte, N. C.
Empire Stove Co., Belleville, Ill.
Grove Furnace, Inc., Garden Grove, Calif.
Holly-General Co., Pasadena, Calif.

King Stove and Range Co., Sheffield, Ala.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Leukart Machine Co., J., Columbus, O.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Major Metal Products, Inc., Los Angeles, Calif.
Major Metal Products, Inc., Los Angeles, Calif.
Martin Stamping & Stove Co., Huntsville, Ala.
Meyer Furnace Co., Peoria, Ill.
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
Payne Co., The, La Puente, Calif.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Ran Appliance Corp., D. P., Compton, Calif.
Rheem Mfg. Co., Chicago, Ill.
Samuel Stamping & Enameling Co., Chattanooga, Tenn.
Southern Heater Corp., Compton, Calif.
Southwest Mfg. Co., Aurora, Mo.
Sunshine Mantle Co., Chanute, Kans.
Temco, Inc., Nashville, Tenn.
Temperature Appliance Mfg. Corp., Sebastopol, Calif.
Tuck Aire Furnace Co., San Francisco, Calif.
Viking Mfg. Corp., Cleveland, Ohio.
Zink Co., John, Tulsa, Okla.

# FURNACES, WARM AIR, GRAVITY, FLOOR, OIL

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Auburn Burner Co., Edgerton, O. Benner-Nawman, Inc., Oakland, Calif. Coleman Co., Inc., Wichita, Kans. Federal Heating and Cooling Corp., Charlotte, N. C. Kleer-Kleen Mfg. Co., Hayward, Calif. Kresky Mfg. Co., Inc., Petaluma, Calif. Leukart Machine Co., J., Columbus, O. Little Burner Co., Inc., H. C., San Rafael, Calif. Monogram Industries, Inc., Quincy, Ill. Northwest Metal Products, Inc., Seattle, Wash. Quiet Automatic Burner Corp., Newark, N. J. Therm Oil Burner Co., Seattle, Wash. Thermo-Products, Inc., North Judson, Ind. United Air Heaters, Inc., Scattle, Wash.

### FURNACES, WARM AIR, GRAVITY, GAS FIRED, CAST IRON

Niagara Furnace Div., Forest City Foundries Co., Cleveland, Ohio. XXth Century Heating & Ventilating Co., Akron, Ohio.

# FURNACES, WARM AIR, GRAVITY, GAS FIRED, STEEL

Advance Furnace Co., Wichita, Kans.

Airwasher Corp., Eaton Rapids, Mich.

Aladdin Heating Corp., San Leandro, Calif.

American-Standard Air Conditioning Div., New York, N. Y.

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.

Armstrong Furnace Co., Div. of National Union Electric Corp.,

Columbus, Ohio.

Auburn Burner Co., Edgerton, O.

Bard Mfg. Co., Bryan, O.

Bonair Div., Peerless Products Co., Philadelphia, Pa.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Campbell Heating Co., Des Moines, Iowa.

Columbia Burner Co., Toledo, Ohio.

Crane Co., Chicago, Ill.

Dalzen Mfg. Co., St. Clair, Mich.

Dornback Furnace & Foundry Co., Eastlake, Ohio.

Dowagiac Steel Furnace Co., Dowagiac, Mich.

Floral City Heater Div., United States Air Conditioning Corp.,

Monroe, Mich.

Fraser and Johnston Co., San Francisco, Calif.

Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.

Hall-Neal Furnace Co., Indianapolis, Ind.

Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.

Henry Furnace Co., Medina, Ohio.

Holly-General Co., Pasadena, Calif.

International Heater Co., Utica, N. Y.

Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.

Lesson Air Cond. Corp., Detroit, Mich.

Lennox Industries Inc., Marshalltown, Iowa.

Lundt, Inc., Ernest C., Little Falls, N. J.

Mayflower Air Conditioners, Inc., St. Paul, Minn.

McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee, Wis.
Meyer Furnace Co., Peoria, Ill.
Morrison Steel Products, Inc., Buffalo, N. Y.
National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Olsen Mfg. Co., C. A., Elyria, Ohio.
Oneida Heater Co., Inc., Oneida, N. Y.
Payne Beverly Mfg. Co., Beverly Hills, Calif.
Peerless Corp., Indianapolis, Ind.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Premier Furnace Co., Dowagiac, Mich.
Rheem Mfg. Co., Chicago, Ill.
Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Ryniker Steel Products Co., Billings, Mont.

Richmond Plumbing Fixtures Div., Rheem Mfg. Co., Metuchen, N. J.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Ryniker Steel Products Co., Billings, Mont.
Schill Mfg. Co., Crestline, Ohio.
Sequoia Mfg. Co., San Carlos, Calif.
Sheet Metal Mfg. Co., Youngstown, O.
Temco, Inc., Nashville, Tenn.
Thatcher Furnace Co., Garwood, N. J.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, Ohio Tuck-Aire Furnace Co., San Francisco, Calif.
Viking Mfg. Corp., Cleveland. O.
Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, Ohio.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
Zick Sheet Metal Works, Dearborn, Mich.

# FURNACES, WARM AIR, GRAVITY, OIL FIRED, CAST IRON

Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo. Keith Furnace Co., Des Moines, Iowa. Montag Inc., Portland, Ore. Sheet Metal Mfg. Co., Youngstown, O. XXth Century Heating & Ventilating Co., Akron, Ohio.

# FURNACES, WARM AIR, GRAVITY, OIL FIRED, STEEL

Airwasher Corp., Eaton Rapids, Mich.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div. Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Edgerton, O.
Bard Mfg. Co., Bryan, Ohio.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Campbell Heating Co., Des Moines, Iowa.
Cary Mfg. Co., Waupaca, Wis.
Crane Co., Chicago, Ill.
Dalzen Mfg. Co., St. Clair, Mich.
Daniels Mfg. Co., St. Clair, Mich.
Daniels Mfg. Co., Inc., Sam. Hardwick, Vt.
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Floral City Heater Div., United States Air Conditioning Corp.,
Monroe, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Furblo Co., Hermansville. Mich.
Green Colonial Inc., Des Moines, Iowa.
Hall-Neal Furnace Co., Indianapolis, Ind.
Hart Heat Div., Avery Farm Machinery Co., Peoria, Ill.
Henry Furnace Co., Hedland, Ohio.
Home Furnace Co., Holland, Mich.
International Heater Co., Utica, N.Y.
Jungers Stove & Range Co., Grafton, Wis.
Kaustine Furnace & Tank Corp., Perry, N. Y.
Keith Furnace Co., Des Moines, Iowa.
Laco Oil Burner Co., Inc., Griswold, Ia.
Leeson Air Cond. Corp., Detroit, Mich.
Lennox Industries, Inc., Marshalltown, Iowa.
Lundt, Inc., Ernest C., Little Falls, N. J.
McDonald Mfg. Co., Holt, Mich.
Metzger Machine & Engineering Co., Thermoflo Div., Milwaukee,
Wis.
Meyer Furnace Co., Peoria, Ill.
Montag Inc., Portland, Ore.

Morrison Steel Products, Inc., Buffalo, N. Y.

National-U. S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Northwest Foundry & Furnace Co., Portsand, Ore.
Olsen Míg. Co., C. A., Elyria, Ohio.
Peerless Corp., Indianapolis, Ind.
Premier Furnace Co., Dowagiac, Mich.
Rosebraugh Co., W. W., Salem, Ore.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, Ohio.
Sandberg Míg. Co., Portland, Ore.
Schill Míg. Co., Crestline, O.
Sheet Metal Míg. Co., Youngstown, O.
Syncromatic Corp., Watertown, Wis.
Thatcher Furnace Co., Garwood, N. J.
Viking Míg. Corp., Cleveland, Ohio.
Waterman-Waterbury Co., Minneapolis, Minn.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
Zick Sheet Metal Works, Dearborn, Mich.

#### FURNACES, WARM AIR, GRAVITY, PIPELESS, CAST IRON

Agricola Furnace Co., Inc., Gadsden, Ala. Green Colonial Inc., Des Moines, Ia. Keith Furnace Co., Des Moines, Iowa. Montag Inc., Portland, Ore. Souther Iron Co., E. E., St. Louis, Mo.

### FURNACES, WARM AIR, GRAVITY, PIPELESS, STEEL

Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, Ohio.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
Ingersoll Products Div., Borg-Warner Corp., Kalamazoo, Mich. Keith Furnace Co., Des Moines, Iowa.

Montag Inc., Portland, Ore.

National-U. S. Radiator Corp., Johnstown, Pa.
Oneida Heater Co., Inc., Oneida, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Rosebraugh Co., W. W., Salem, Ore.
Thatcher Furnace Co., Garwood, N. J.

Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

#### FURNACES, WARM AIR, GRAVITY, WALL, GAS

Advance Furnace Co., Wichita, Kans.
Associated Products, Beverly Hills, Calif.
Bastian-Morely Co., Inc., La Porte, Ind.
Chattanooga Royal Co., Chattanooga, Tenn.
Coleman Co., Inc., Wichita, Kans.
Commonwealth Co., Alhambra, Calif.
Custom-Aire Products Div., Pacific Industries, Inc., San Francisco, Calif.
Day & Night Mfg. Co., La Puente, Calif.
Gaffers & Sattler, Los Angeles, Calif.
Glenwood Range Co., Taunton, Mass.
Grove Furnace, Inc., Garden Grove, Calif.
Heil-Quaker Corp., Nashville, Tenn.
Holly-General Co., Pasadena, Calif.
King Stove and Range Co., Sheffield, Ala.
Lennox Industries Inc., Marshalltown, Ia.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Monogram Industries, Inc., Quincy, Ill.
Payne Co., The, La Puente, Calif.
Peerless Mfg. Div., Dover Corp., Louisville, Ky.
Pioneer Co., Los Angeles, Calif.
Samuel Stamping & Enameling Co., Chattanooga, Tenn.
Southwest Mfg. Co., Aurora, Mo.
Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind.
Temo, Inc., Nashville, Tenn.
Tuck-Aire Furnace Co., San Francisco, Calif.
Williams Furnace Co., Buena Park, Calif.

# FURNACES, WARM AIR, GRAVITY, WALL, OIL

Heil-Quaker Corp., Nashville, Tenn. Kresky Mfg. Co., Inc., Petaluma, Calif. Little Burner Co., Inc., H. C., San Rafael, Calif. Monogram Industries, Inc., Quincy, Ill. Northwest Metal Products, Inc., Seattle, Wash. Silent Sioux Corp., George City, Ia.

# FURNACES, WARM AIR, GRAVITY, WOOD BURNING, CAST IRON

Montag, Inc., Portland, Ore. XXth Century Heating & Ventilating Co., Akron, O.

### FURNACES, WARM AIR, GRAVITY, WOOD BURNING, STEEL

Bovee Furnace Works, Waterloo, Iowa.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Iowa.
Daniels Mfg. Co., Inc., Sam, Hardwick, Vt.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Furblo Co., Hermansville, Mich.
International Heater Co., Utica, N. Y.
Montag, Inc., Portland, Ore.
Northwest Foundry & Furnace Co., Portland, Ore.
Rosebraugh Co., W. W., Salem, Ore.
Sandberg Mfg. Co., Portland, Ore. (Sawdust)
Syncromatic Corp., Watertown, Wis.
Waterman-Waterbury Co., Minneapolis, Minn.

# GAGES, DRAFT, INDICATING, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bristol Co., Waterbury, Conn.
Dwyer Mfg. Co., F. W., Michigan City, Ind.
Ellison Draft Gage Co., Inc., Chicago, Ill.
General Controls Co., Glendale, Calif.
Hays Corp., Michigan City, Ind.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Meriam Instrument Co., Cleveland, Ohio.
Moeller Instrument Co., Richmond Hill, N. Y.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

# GAGES, INDICATING, FILTER RESISTANCE

Bacharach Industrial Instrument Co., Pittsburgh, Pa. Better Engineered Controls, Los Angeles, Calif. Dwyer Mfg. Co., F. W., Michigan City, Ind. Ellison Draft Gage Co., Inc., Chicago, Ill. Hays Corp., Michigan City, Ind. Research Appliance Co., Allison Park, Pa. Rex Metal-Craft, Inc., Indianapolis, Ind. Rybolt Heater Co., Ashland, O. Uehling Instrument Co., Paterson, N. J. York Corp., Subsidiary of Borg. Warner Corp., York, Pa.

#### GAGES, PRESS BRAKE

Addresso Mfg. Co., Franklin Park, Ill. American Actuator Corp., Stamford, Conn. (Magnetic)

# GAGES, PRESSURE, INDICATING (FOR REFRIGERANTS AND FUEL OIL)

Imperial Brass Mfg. Co., Chicago, III.
International Register Co., Chicago, III.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Marshalltown Mfg. Co., Marshalltown, Ia.
Marsh Corp., Jas. P., Skokie, III.
United States Gauge Div., American Machine & Metals, Inc.,
Sellersville, Pa.
Weksler Instruments Corp., Freeport, N. Y.

#### GAGES, TANK, FUEL OIL

Applied Mechanics Co., Boston, Mass. Barclay, Inc., Robt., Chicago, Ill. Bearlee Products Co., Green Bay, Wis. Boston Machine Works Co., Lynn, Mass. Carlson Co., Inc., A. B., Aurora, Ill. Harvey, Inc., Sid, Valley Stream, N. Y. Hasko Utilities Co., New York, N. Y. Homeward Products, Inc., Des Moines, Ia. Kresno-Stamm Mfg. Co., Palisades Park, N. J. Krueger Sentry Gauge Co., Green Bay, Wis. Liquidometer Corp., Long Island City, N. Y. Mel-Gauge Co., New Haven, Conn. Meriam Instrument Co., Cleveland, O. Oil Equipment Mfg. Co., New Haven, Conn. Petrometer Corp., Long Island City, N. Y. Rochester Mfg. Co., Inc., Rochester, N.Y. Scully Signal Co., Melrose, Mass. Simplex Distributors, Brooklyn, N. Y. Uehling Instrument Co., Paterson, N. J.

#### GALVANIZED SHEETS

See Sheets, Metal, Steel, Galvanized

#### GARAGE EXHAUST FITTINGS

See Fittings, Exhaust, Garage

#### GAS BURNER CONTROLS

See Controls; Control Systems

#### **GAS BURNERS**

See Burners, Gas, Residential

#### GASKETS, CURTAIN WALL PANEL

See Sealants, Molded

### GASKETS, FILTER FRAME SEALING

Evans Corp., George, Moline, Ill. Greene, Tweed & Co., North Wales, Pa. Pacific States Felt & Mfg. Co., Inc., San Francisco, Calif. Products Research Co., Los Angeles, Calif. United Mineral & Chemical Corp., New York, N. Y.

#### **GAS LIGHTER TUBES**

See Controls, Pilot, Gas Burner

#### GAS REGULATOR VALVES

See Valves, Gas Pressure Regulating

#### GATES, BLAST

Berger Bros. Co., Philadelphia, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clarage Fan Co., Kalamazoo, Mich.
Day Co., Minneapolis, Minn.
DeVilbiss Metal Fabricators Co., Detroit, Mich.
Ducon Co., The, Mincola, N. Y.
Goethel Sheet Metal Works, Inc., Alfred, Milwaukee, Wis.
Kirk & Blum Mfg. Co., Inc., St. Louis, Mo.
Rees Blow Pipe Mfg. Co., Inc., St. Louis, Mo.
Rees Blow Pipe Mfg. Co., Inc., St. Louis, Mo.
Spencer Turbine Co., Hartford, Conn.
Western Blower Co., Seattle, Wash.
Winkler & Sons, Inc., A. E., Milwaukee, Wis.

#### **GEARING, SKYLIGHT**

See Lifts, Skylight

#### GERMICIDAL APPARATUS

See Sterilizers, Air

### GLASSES, SIGHT, FOR REFRIGERANT LINES

Allin Mfg. Co., Chicago, III. Ansul Chemical Co., Refrigeration Div., Marinette, Wis. McIntire Co., Livingston, N. J.

# GLASS, INSULATED WINDOW PANELS

Libbey-Owens Ford Glass Co., Toledo, O. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

#### GLASS, WIRE, FOR SKYLIGHTS

Atcheson Glass Co., Buffalo, N. Y.
Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn.
Pennsylvania Wire Glass Co., Philadelphia, Pa.
Robertson Co., H. H., Pittsburgh, Pa.

#### GRAVITY FURNACES

See Furnaces, Warm Air, Gravity

# **GRAVITY REGISTERS**

See Registers, Heating, Ventilating and Air Conditioning

#### **GREASE FILTERS**

See Fliters, Grease

#### GRILLES, DOOR

Air Devices, Inc., New York, N. Y.
Air-Factors, Inc., Monrovia, Calif.
Carnes Corp., Verona, Wis.
Controlair Mfg. Co., Los Angeles, Calif.
Independent Register Co., Cleveland, O.
Krueger Air Conditioning Corp., Tucson, Ariz.
Lima Register Co., Lima, O.
Shoemaker Mfg. Co., Seattle, Wash.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn.
United States Register Co., Battle Creek, Mich.
Universal Diffuser Corp., Tuckahoe, N. Y.
Young Regulator Co., Cleveland, O.

# GRILLES, HEATING, VENTILATING AND AIR CONDITIONING

Also See Faces and Registers

A & A Register Co., Cleveland, Ohio.

A-J Míg. Co., Kansas City, Mo.

Air Control Products, Inc., Coopersville, Mich.

Air Devices, Inc., New York, N. Y.

Air Distribution Products Co., Los Angeles, Calif.

Air-Factors, Inc., Monrovia, Calif.

Air-Factors, Inc., Monrovia, Calif.

Airguide Plastics Corp., Miami, Fla. (Nylon)

American Warming & Ventilating Co., Toledo, Ohio.

American Welding & Mfg. Co., Building Products Div., Warren, O. (Door)

Arizona Maintenance Co., Tucson, Ariz.

Auer Register Co., Cleveland, Ohio.

Austin Engineering & Míg. Co., Inc., Ysleta, Tex.

Bahnson Co., Winston-Salem, N. C.

Barber-Colman Co., Rockford, Ill.

Beckley Perforating Co., Garwood, N. J.

Berger Furnace Corp., Belle Vernon, Pa.

Carnes Corp., Verona, Wis.

Central Míg. Co., Houston, Tex. (Combination filter and return grille)

Char-Gale Míg. Co., Anoka, Minn.

Cleveland Register & Grille Míg. Co., Cleveland, O.

Connor Engineering Corp., Danbury, Conn.

Cortrolair Míg. Co., Los Angeles, Calif.

Corbman Bros., Inc., Philadelphia, Pa.

Diamond Míg. Co., Wyoming, Pa.

Dowagiac Steel Furnace Co., Dowagiac, Mich.

Dry Míg. Co., Winters, Tex.

Erdle Perforating Co., Rochester, N. Y. General Air Products Corp., Cedar Grove, N. J.
Harrington & King Perforating Co., Chicago, Ill.
Harrison Sheet Steel Co., Chicago, Ill.
Hart & Cooley Mfg. Co., Holland, Mich. Hastings Air Control, Inc., Omaha, Nebr. Hendrick Mfg. Co., Carbondale, Pa. Independent Register Co., Cleveland, Ohio.
International Mfg. Co., Oklahoma City, Okla.
Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Krueger Air Conditioning Corp., Tucson, Ariz. Lau Blower Co., Dayton, O. Lenly Mfg. Co., Inc., Los Angeles, Calif. Lennox Industries Inc., Marshalltown, Ia. Lima Register Co., Lima, Ohio. Made-Rite Co., Inc., Newport, Ky. Made-Rite Co., Inc., Newport, Ky.
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
Maurlee Co., Inc., Woodbury Heights, N. J.
Mechanical Contractors Supply Co. Inc., New York, N. Y.
Metal Industries, Inc., Clearwater, Fla.
Midco Register Corp., St. Paul, Minn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moncrief Furnace Co., Atlanta, Ga.
Mundt & Sons, Charles, Jersey City, N. J.
National Grille & Register Co., Cleveland, O.
Patro Met. Co. Philadelphia, Pa Patco Mfg. Co., Philadelphia, Pa.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y. Rock Island Register Co., Rock Island, Ill. Shoemaker Mfg. Co., Seattle, Wash.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Temco, Inc., Nashville, Tenn.
Titus Mfg. Corp., Waterloo, Ia.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn. United States Register Co., Battle Creek, Mich. Universal Diffuser Corp., Tuckahoe, N. Y. Warren Register and Grille, Inc., Miami, Fla. Waterloo Register Co., Inc., Waterloo, Ia. Wilde Register & Grille Co., Detroit, Mich. Young Regulator Co., Cleveland, O.

#### GRILLES, RETURN AIR, BASEBOARD

(Longitudinal Slot Type)

Air Control Products, Inc., Coopersville, Mich. Auer Register Co., Cleveland, O. Carnes Corp., Verona, Wis. Hart & Cooley Mfg. Co., Holland, Mich. Lennox Industries Inc., Marshalltown, Ia. Lima Register Co., Lima, O. Titus Mfg. Corp., Waterloo, Ia. United States Register Co., Battle Creek, Mich. Waterloo Register Co., Inc., Waterloo, Ia.

### GRINDERS, BUFFERS, POLISHERS AND SANDERS

See Buffers, Grinders, Polishers and Sanders

#### GROOVING MACHINES

See Machines, Grooving

#### **GUARDS, SNOW**

Barnard Co., Geo. A., Worcester, Mass.
Berger Bros. Co., Philadelphia, Pa.
Cartier & Sons Co., M. N., Providence, R. I.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cody Co., F. C., Chicago, Ill.
Cromley's, Lewisburg, Pa.
Danzer Metal Works Co., Hagerstown, Md.
Folsom Snow Guard Co., Millis, Mass.
Hussey & Co., C. G., Pittsburgh, Pa.
Levow, Inc., David, South Hackensack, N. J.
Obdyke, Inc., Philadelphia, Pa.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.

### **GUNS, PLASTIC WELDING**

American Agile Corp., Bedford, O. D & R Plastic Welders, Inc., Hazardville Conn. Industrial Plastic Fabricators, Inc., Norwood, Mass. Laramy Products Co., Hingham, Mass. Seelye Craftsmen, The, Minneapolis, Minn.

#### **GUNS, RIVET**

Chicago Pneumatic Tool Co., New York, N. Y. Huck Mfg. Co., Detroit, Mich. Pop Rivet Div., United Shoe Machinery Corp., Shelton, Conn.

#### **GUNS, SOOT**

Ampion Corp., Long Island City, N. Y.

Miller Product Co., Lansing, Mich.

S. O. S. Products Co., Inc., Brooklyn, N. Y.

#### GUNS, SPRAY, METAL

Albertson & Co., Inc., Sioux City, Is. Wall Colmonoy Corp., Detroit, Mich.

#### **GUNS, SPRAY, PAINT**

Black Mfg. Co., Baltimore, Md.
Eclipse Air Brush Co., Newark, N. J.
Plummer Spray Equipment Co., Napoleon, Ohio.
Ransburg Electro-Coating Corp., Indianapolis, Ind. (Electrostatic)
Spray Engineering Co., Burlington, Mass.

Thomas Industries, Inc., Electric Sprayit Div., Sheboygan, Wis.

#### **GUNS, STUD**

Ammo Products, Inc., Washington, D. C. (Cartridge)
Columbia-Matic "8" Corp., Div. of Columbia Mills, Inc., Syracuse, N. Y. (Powder actuated)
K. S. M. Products, Inc., Merchantville, N. J.
Mine Safety Appliances Co., Pittsburgh, Pa. (Cartridge actuated)
Nelson Stud Welding Div., Gregory Industries, Inc., Loratn,
O. (Welding)
Omark Industries, Inc., Portland, Ore. (Powder actuated and arc welding)
Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp., New Haven, Conn. (Powder actuated)
Remington Arms Co., Inc., Bridgeport, Conn. (Powder actuated)
Shielded Stud Welding Co., Long Beach, Calif.

#### **GUTTER ACCESSORIES**

Hangers, conductors, strainers, miters, end caps, slip joints, thimbles, funnels, guards, etc.

Accurate Sheet Metal & Mfg. Works, Chicago, Ill. (Hangers and guards)

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.

Alabama Metal Lath Co., Birmingham, Ala.

Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)

American Metal Products, Los Angeles, Calif.

Atchison Specialty Mfg. Co., Atchison, Kans.

Barnes Metal Products Co., Chicago, Ill.

Berger Bros. Co., Philadelphia, Pa. (End pieces, end caps, conductor strainers, miters, slip joints)

Berger Div., Republic Steel Corp., Canton, O.

Bertram Mfg. Co., Chicago, Ill.

Boosey Mfg. Co., Norman, Detroit, Mich. (Strainers)

Braden Mfg. Co., Inc., Terre Haute, Ind.

Central Heating Service, Peoria, Ill. (Ferrules)

Char-Gale Mfg. Co., Anoka, Minn.

Chase Brass & Copper Co., Inc., Waterbury, Conn.

Cincinnati Elbow Co., Cincinnati, O., (Elbows)

Commercial Machine & Welding Co., Dover, O. (Hangers)

Enderle Inc., Ltd., Frank X., Los Angeles, Calif.

Famous Furnace Co., Cleveland, Ohio. (Strap hangers, end

Franck & Fric, Inc., Cleveland, O. (Conductor fasteners) Galvan Mfg. Co., New Albany, Ind. (Elbows) Gary Steel Products Corp., Gary, Ind. (Hangers, miters, end Glatt Gutter Anchors, Chicago, Ill. (Hangers)
Gray Metal Products, Inc., Rochester, N. Y.
Harrison Sheet Steel Co., Chicago, Ill.
Haven-Busch Co., Grandville, Mich. (Strainers)
Hussey & Co., C. G., Pittsburgh, Pa. (Copper).
Inland Steel Products Co., Milwaukee, Wis.
J & J Sheet Metal Co., Van Dyke, Mich.
Klauer Mfg. Co., Dubuque, Iowa.
Labeled Metal Products Corp., Broadview, Ill.
LaCrosse Steel Roofing & Corrugating Co., LaCrosse, Wis.
Levow, Inc., David, South Hackensack, N. J.
Lockhart Mfg. Corp., Detroit, Mich. (Guards)
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Maze Co., W. H., Peru, Ill. (Spikes)
Moncrief Lenoir Mfg. Co., Douston, Tex.
New Delphos Mfg. Co., Delphos, Ohio.
Northwest Metal Products, Inc., Seattle, Wash.
Obdyke, Inc., B. P., Philadelphia, Pa.
Owens-Corning Fiberglas Corp., New York, N. Y. (Glass fiber)
Penn Supply & Metal Corp., Philadelphia, Pa. (Conductor, slip
joints, funnels)
Permanent Products, Inc., St. Paul, Minn. (Glass fiber)
Profit Products Co., Chicago, Ill. (End caps)
Quaker State Metals Co., Lancaster, Pa.
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, O. (Miters, end caps, slip joints, funnels)
Republic Steel Corp., Cleveland, O.
Reynolds Metals Co., Richmond, Va. (Aluminum).
Riggin Metal Products, Inc., Kankakee, Ill.
Roofing & Supply Co., Chattanooga, Tenn.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sheut Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sioux Steel Co., Sshland, Ky. (Gutter guards).
Steel Products Supply Co., Cleveland, O. (Gutter and eave-edge fiashing)
Standard Metal Fabricating Co., Omaha, Nebr.
Steele Mfg. Co., Ashland, Ky. (Gutter guards).
Steel Products Supply Co., Glen Ellyn, Ill. (Ends)
Tiffin Art Metal Co., Tiffin, Ohio. (Hangers, miters, ends, thimbles).
Union Sheet Metal Supply Co., Cleveland, O.
Wallace Co., William, Metalbestos Div., Belmont, Calif.
Wheeling Corrugating Co., Weeling, W. Va.
Wiretex Mfg. Co., Inc., Bridgeport, Conn. (S

#### **GUTTER FORMERS**

See Machines, Gutter Forming

### GUTTERS

Acme Mfg. Co., Philadelphia, Pa. (Galvanized and aluminum)
Ajax Furnace Fittings Co., Div. Cincinnati Sheet Metal &
Roofing Co., Cincinnati, Ohio.
Alabama Metal Lath Co., Birmingham, Ala. (Steel & copper).
Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)
Barnes Metal Products Co., Chicago, Ill. (Zinc, aluminum, galvanized, copper)
Berger Bros. Co., Philadelphia, Pa.
Berger Div., Republic Steel Corp., Canton, O. (Galvanized and stainless)
Braden Mfg. Co., Inc., Terre Haute, Ind.
Char-Gale Mfg. Co., Anoka, Minn.
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Conner Mfg. Co., Louisville, Ky. (Galvanized, copper, aluminum)
Enderle Inc., Ltd., Frank X., Los Angeles, Calif. (Galvanized)
Gary Steel Products Corp., Gary, Ind. (Galvanized)
Harrison Sheet Steel Co., Chicago, Ill. (Alum.)
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
Inland Steel Products Co., Milwaukee, Wis. (Galvanized & copper)
Klauer Mfg. Co., Dubuque, Iowa. (Galvanized steel)
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galvanized steel)
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galvanized steel)
Matthiessen & Hegeler Zinc Co., LaSalle, Ill.
Miller & Doing, Brooklyn, N. Y. (Ornamental)
Moncrief Lenoir Mfg. Co., Delphos, Ohio. (Galv. steel)
Northwest Metal Products, Inc., Seattle, Wash. (Galvanized)

caps, slip joints)

Obdyke, Inc., B. P., Philadelphia, Pa. (Aluminum, copper, gal-

Owens Corning Fiberglas Corp., New York, N. Y. (Glass fiber)
Penn Supply & Metal Corp., Philadelphia, Pa. (Galvanized copper & aluminum)

Perkinson, William J., Chicago, Ill. (Copper & galvanized)
Permanent Products, Inc., St. Paul, Minn. (Glass fiber)
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Quaker State Metals Co., Lancaster, Pa. (Aluminum and galva-

Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp., Dover, Ohio. (Galvanized steel)

Republic Steel Corp., Cleveland, O. (Stainless steel). Reynolds Metals Co., Richmond, Va. (Aluminum). Riggin Metal Products, Kankakee, Ill.

Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. (Copper, galvanized, aluminum)

Ryniker Steel Products Co., Billings, Mont. Schecter Bros. Co., Philadelphia, Pa., (Galvanized, copper, aluminum)

Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Aluminum, copper, galvanized & zinc) Sheet Metal Products Co., Peoria, III.

Sioux Steel Co., Sioux Falls, S. Dak. (Galv. & copper)
Southbridge Roofing Co., Inc., Southbridge, Mass. (Galv. &

Standard Metal Fabricating Co., Omaha, Nebr. (Galvanized)
Superior Metal Fabricating Co., Niles, O. (Galvanized)
Superior Safety Furnace Pipe Co., Detroit, Mich.
Thor Metal Products Co., Inc., Syracuse, N. Y. (Galv. & copper)
Tiffin Art Metal Co., Tiffin, Ohio. (Aluminum, stainless steel, copper & galv.) Van Noorden Co., E., Boston, Mass.

Wheeling Corrugating Co., Wheeling, W. Va. (Galvanized

steel)
Wailace Co., William, Metalbestos Div., Belmont, Calif.
(Galvanized & copper)

#### **GUTTER TOOLS**

See Tools, Gutter, Manual

#### HACK SAWS

See Machines, Sheet Metal Working, Saws, Hack

# HAMMERS, ELECTRIC

Black & Decker Mfg. Co., Towson, Md. Ingersoll-Rand Co., New York, N. Y. Millers Falls Co., Greenfield, Mass Milwaukee Electric Tool Corp., Milwaukee, Wis. Modern Mfg. Co. Inc., Willow Grove, Pa.

Noble & Stanton, Inc., Bedford, O.

Phillips Drill Co., Michigan City, Ind.

Port City Machine & Tool Co., Muskegon, Mich. Skil Corp., Chicago, Ill.
Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Super-Slugger Co., Bedford, O. Syntron Co., Homer City, Pa.
Thor Power Tool Co., Aurora, Ill.
Wodack Electric Tool Corp., Chicago, Ill.

# HAMMERS, PNEUMATIC

Burgess Thomas Co., Bloomfield, N. J. Chicago Pneumatic Tool Co., New York, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Modern Mfg. Co. Inc., Willow Grove, Pa.
Rotor Tool Co., Cleveland, O. Skil Corp., Chicago, Ill.
Superior Pneumatic & Mfg. Inc., Cleveland, O. Thor Power Tool Co., Aurora, Ill. Watervliet Tool Co., Inc., Albany, N. Y.

#### HAND SHEARS

See Tools, Hand

# HAND TOOLS

See Tools, Hand

#### HANGERS AND SUPPORTS, DUCT

See Fastenings, Sheet Metal

# HARDWARE, CABINET AND CASING

Handles, name plates, locks, etc.

American Insulator Corp., New Freedom, Pa. Amerock Corp., Rockford, Ill. (Pulls, catches) Corbin Div., P. & F., American Hardware Corp., New Britain, Conn. (Handles, locks) Duro-Dyne Corp., Farmingdale, N. Y. (Door buckles and door

handles)

Bandles)

Etched Products Co., Long Island City, N. Y. (Name Plates)

Fisher Brass Foundry and Mfg., Los Angeles, Calif. (Handles)

Hartwell Co., Los Angeles, Calif. (Latches and hinges)

Lodding Inc., Worcester, Mass. (Handles) Metalcraft, Inc., Mason City, Ia. (Name plates)
National Lock Co., Rockford, Ill. (Handles, name plates, locks, piano hinges, crating bolts, catches) Soss Mfg. Co., Detroit, Mich. (Invisible hinges)

#### HARDWARE, DAMPER

Star Stainless Screw Co., Paterson, N. J. (Piano hinges)

Adams Co., The, Dubuque, Ia. Duro-Dyne Corp., Farmingdale, N. Y. Elgen Mfg. Corp., Long Island City, N. Y.

#### HARDWARE, DUCT

Corbman Bros., Inc., Philadelphia, Pa. Fossum Damper Control Co., St. Paul, Minn. Hart & Cooley Mfg. Co., Holland, Mich. (Casing clips) Hartwell Co., Los Angeles, Calif. Ventfabrics, Inc., Chicago, Ill.

# HEATERS, AIR, DIRECT FIRED, COAL

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air. See the Listing Under Furnaces

Campbell Co., E. K., Kansas City, Mo. Campbell Heating Co., Des Moines, 1a.

MaGirl Foundry & Furnace Co., Bloomington, Ill.

National Heater Co., Inc., St. Paul, Minn.

Reznor Mfg. Co., Mercer, Pa.

### HEATERS, AIR, DIRECT FIRED, COMBINATION GAS AND OIL

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass. Arkos Mfg. Co., Detroit, Mich Campbell Co., E. K., Kansas City, Mo. Campbell Heating Co., Des Moines, la Carrier Corp., Syracuse, N. Y.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Drying Systems Co., Chicago, Ill.
Inland Heater Corp., St. Paul, Minn.
Lennox Industries Inc., Marshalltown, Ia. MaGirl Foundry & Furnace Co., Bloomington, Ill. National Heater Co., Inc., St. Paul, Minn. Reznor Mfg. Co., Mercer, Pa. Wanson Corp., The, Lewistown, Pa. York-Shipley, Inc., York, Pa. Zink Co., John, Tulsa, Okla.

### HEATERS, AIR, DIRECT FIRED, GAS, CENTRIFUGAL FAN TYPE

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass. Airtherm Mfg. Co., St. Louis, Mo. American Foundry & Furnace Co., Bloomington, Ill.

American Furnace Co., St. Louis, Mo.
Arkos Mfg. Co., Detroit, Mich.
Auburn Burner Co., Edgerton, O.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Chicago Steel Furnace Co., Chicago, Ill.
DeVilbiss Metal Fabricators Co., Detroit, Mich.
Dravo Corp., Pittsburgh, Pa.
Drying Systems Co., Chicago, Ill.
Hastings Air Conditioning Co., Inc., Hastings, Neb.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
Humphrey Div., Arkla Air Conditioning Corp., Little Rock, Ark.
Inland Heater Corp., St. Paul, Minn.
Johnson Heater Corp., Chelsea, Mass.
Kilbury Mfg. Co., Inc., Lawndale, Calif.
Lennox Industries Inc., Marshalltown, Ia.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Modine Mfg. Co., Racine, Wis.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
Norman Products Co., Columbus, O.
OverHead Heaters, Inc., Detroit, Mich.
Payne Co., The, La Puente, Calif.
Reznor Mfg. Co., Mercer, Pa.
Rockwell Co., W. S., Farifield, Conn.
Surface Combustion Corp., Toledo, O.
Tuck-Aire Furnace Co., San Francisco, Calif.
United States Air Conditioning Corp., Delaware, O.
Utility Appliance Corp., Los Angeles, Calif.
Wanson Corp., The, Lewistown, Pa.
York-Shipley, Inc., York, Pa.
Zink Co., John, Tulsa, Okla.

#### HEATERS, AIR, DIRECT FIRED, GAS, PORTABLE, FOR SPACE HEATING

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Aeroil Products Co., Inc., South Hackensack, N. J. (125,000-500,000 Btu)

American Air Filter Co., Inc., Louisville, Ky.

Bica Co., Girard, O. (50,000-85,000 Btu)

Campbell Heating Co., Des Moines, Ia. (200,000-1,500,000 Btu)

Chicago Steel Furnace Co., Chicago, Ill. (120,000-2,500,000 Btu)

Insto-Gas Corp., Detroit, Mich. (Up to 125,000 Btu)

Johnson Gas Appliance Co., Cedar Rapids, Ia.

Mammoth Furnace Co., Minneapolis, Minn. (300,000-1,000,000 Btu)

National Heater Co., Inc., St. Paul, Minn. (180,000-3,000,000 Btu)

Stow Mfg. Co., Binghamton, N. Y.

#### HEATERS, AIR, DIRECT FIRED, OIL, CENTRIFUGAL FAN TYPE

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass. Arkos Mfg. Co., Detroit, Mich. Campbell Heating Co., Des Moines, Ia. Carrier Corp., Syracuse, N. Y. Chicago Steel Furnace Co., Chicago, Ill. Dravo Corp., Pittsburgh, Pa. Drying Systems Co., Chicago, Ill. Inland Heater Corp., St. Paul, Minn. Lennox Industries Inc., Marshalltown, Ia. MaGirl Foundry & Furnace Co., Bloomington, Ill. Mammoth Furnace Co., Minneapolis, Minn. Mueller Climatrol, Milwaukee, Wis. OverHead Heaters, Inc., Detroit, Mich. Wanson Corp., The, Lewistown, Pa. York-Shipley, Inc., York, Pa.

# HEATERS, AIR, DIRECT FIRED, OIL, FLOOR TYPE

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass. Airtherm Mfg. Co., St. Louis, Mo.

American Foundry & Furnace Co., Bloomington, Ill.
Arkos Mfg. Co., Detroit, Mich.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Drying Systems Co., Chicago, Ill.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Johnson Heater Corp., Chelsea, Mass.
Lennox Industries Inc., Marshalltown, Ia.
MaGirl Foundry & Furnace Co., Bloomington, Ill.
Mammoth Furnace Co., Minneapolis, Minn.
National Heater Co., Inc., St. Paul, Minn.
Reznor Mfg. Co., Mercer, Pa.
Wanson Corp., The, Lewistown, Pa.
Williams Div., Eureka Williams Corp., Bloomington, Ill.
York-Shipley, Inc., York, Pa.

# HEATERS, AIR, DIRECT FIRED, OIL, PORTABLE, FOR SPACE HEATING

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Acme Oil Burner Co., Inc., Cedar Rapids, Ia.
Air Conditioning Engineering Co., Cambridge, Mass. (200,000-635,000 Btu)
American Foundry & Furnace Co., Bloomington, Ill. 400,000-2,000,000 Btu)
Arkos Mfg. Co., Detroit, Mich.
Auburn Burner Co., Edgerton, O.
Campbell Heating Co., Des Moines, Ia. (Up to 3,150,000 Btu)
Chicago Steel Furnace Co., Chicago, Ill. (120,000-2,500,000 Btu)
Interstate Heater Mfg. Co., Denver, Colo. (80,000-180,000 Btu)
Interstate Heater Corp., Chelsea, Mass. (500,000 Btu)
Lennox Industries Inc., Marshalltown, Ia. (245,000 Btu)
Lennox Industries Inc., Marshalltown, Ia. (245,000 Btu)
Mammoth Furnace Co., Minneapolis, Minn. (300,000-1,000,000 Btu)
Master Vibrator Co., Davton, O.
Mortemp Corp., Seattle, Wash.
National Heater Co., Inc., St. Paul, Minn. (400,000-1,800,000 Btu)
Nelson Products, Herman, American Air Filter Co., Inc., Louis-ville, Ky.
Quiet Automatic Oil Burner Corp., Newark, N. J.
Reznor Mfg. Co., Mercer, Pa.
Siebring Mfg. Co., George, Ia.
Silent Glow Oil Burner Co., Hartford, Conn.
Stow Mfg. Co., Binghamton, N. Y.
Tiernlund Mfg. Co., St. Paul, Minn.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.

# HEATERS, AIR, DIRECT FIRED, OIL, SUSPENDED TYPE

For Furnaces for Central Plant Installation EXCLUSIVELY for Duct Distribution of the Air, See the Listing Under Furnaces

Air Conditioning Engineering Co., Cambridge, Mass.
Airtherm Mfg. Co., St. Louis, Mo.
American Foundry & Furnace Co., Bloomington, Ill.
American Furnace Co., St. Louis, Mo.
Arkos Mfg. Co., Detroit, Mich.
Auburn Burner Co., Edgerton, O.
Campbell Co., E. K., Kansas City, Mo.
Campbell Heating Co., Des Moines, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Cox Mfg. Co., Ridgeville, Ind.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Gilbert & Barker Mfg. Co., West Springfield, Mass.
Inland Heater Corp., St. Paul, Minn.
Mammoth Furnace Co., Minneapolis, Minn.
Mueller Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
OverHead Heaters, Inc., Detroit, Mich.
Quiet Automatic Oil Burner Corp., Newark, N. J.
Reznor Mfg. Co., Mercer, Pa.
Williams Oil-O-Matic Div., Eureka Williams Corp., Bloomington,
Ill.
York-Shipley, Inc., York, Pa.

#### HEATERS AND RADIATORS, ELECTRIC

Acme Electric Heating Co., Boston, Mass. Spartan Electric Radiator Corp., Maspeth, N. Y.

### HEATERS, DUCT, ELECTRIC

Carrier Corp., Syracuse, N. Y.
Electromode Div. of Commercial Controls Corp., Rochester, N. Y.
Heat Controller, Inc., Jackson, Mich.
Industrial Engineering and Equipment Co., Brentwood, Mo
Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc.,
Danvers, Mass.
Waage Electric, Inc., Kenilworth, N. J.
Wesix Electric Heater Co., San Francisco, Calif.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Wilson Electric Furnaces, Rossville, Ga.

### **HEATERS, DUCT, GAS**

Allan Engineering Co., Dallas, Tex.
American-Standard Industrial Div., Detroit, Mich.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Irvington, N. Y.
Campbell Heating Co., Des Moines, Ia.
Carrier Corp., Syracuse, N. Y.
Chicago Steel Furance Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Dravo Corp., Machinery Div., Pittsburgh, Pa.
Great National Air Conditioning Corp., Oklahoma City, Okla.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
Henry Furnace Co., Medina, O.
Humphrey Div., Arkla Air Conditioning Corp., Little Rock, Ark.
Inland Heater Corp., St. Paul, Minn.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Lennox Industries Inc., Marshalltown, Ia.
Mammoth Furnace Co., Minneapolis, Minn.
Modine Mfg. Co., Racine, Wis.
Nuclear Climatrol, Milwaukee, Wis.
National Heater Co., Inc., St. Paul, Minn.
National-U. S. Radiator Corp., Johnstown, Pa.
Norman Products Co., Columbus, O.
Olsen Mfg. Co., The C. A., Elpria, O.
OverHead Heaters, Inc., Detroit, Mich.
Payne Co., The, La Puente, Calif.
Peerless Mfg. Div., Dover Corp., Louisville, Ky.
Reznor Mfg. Co., The C. A., Elpria, O.
OverHeating & Ventilating Co. Div. Young Sales Corp., St.
Louis, Mo.
Tuck-Aire Furnace Co., San Francisco, Calif.
United States Air Conditioning Corp., Delaware, O.
Utility Appliance Corp., Los Angeles, Calif.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.

### HEATERS, DUCT, OIL

Air Conditioning Engineering Co., Cambridge, Mass. Campbell Heating Co., Des Moines, Ia. Chicago Steel Furnace Co., Chicago, Ill. Inland Heater Corp., St. Paul, Minn. Mammoth Furnace Co., Minneapolis, Minn. National Heater Co., Inc., St. Paul, Minn. Overhead Heaters, Inc., Detroit, Mich.

### HEATERS, ELECTRIC, BASEBOARD

Allied Precision Industries, Inc., Geneva, Ill.

Ampere Industries, Newark, N. J.

Argo Industries, Hartford, Conn.

Arvin Industries, Inc., Columbus, Ind.

Berko Electric Mfg. Corp., Queens Village, N. Y.

Brown Products Corp., Union, N. J.

Carrier Corp., Syracuse, N. Y.

Cavalier Corp., Electric Heating Div., Chattanooga, Tenn.

Ceilheat, Inc., Knoxville, Tenn.

Electriliving Corp., Indianapolis, Ind.

Electromode Div. of Commercial Controls Corp., Rochester, N. Y.

Electro-Products Mfg. Co., Vancouver, Wash.

Electrovector, Inc., Brooklyn, N. Y.

Embassy Steel Products, Inc., Brooklyn, N. Y.

Emerson Electric Mfg. Co., St. Louis, Mo.

General Electric Co., Wiring Devices Dept., Providence, R. I.

Hunter Div., Robbins & Myers, Inc., Memphis, Tenn.

Ilg Electric Ventilating Co., Chicago, Ill.

International Oil Burner Co., St. Louis, Mo.

King Electrical Mfg. Co., Seattle, Wash.

Markel Electric Products, Inc., Buffalo, N. Y.

Martin Stamping & Stove Co., Huntsville, Ala.

Meier Electric, Indianapolis, Ind.

Modernheat Cable Corp., Kingsport, Tenn.

Radiant Electric Heat Co., Springfield, Ill.

Ramco Manufacturing and Engineering, Portland, Ore.

Roberson Inc., Mountlake Terrace, Wash.

Spartan Electric Radiator Corp., Maspeth, N. Y.

Sundial Electric Co., Richmond Hill, N. Y.

Sunwarm, Inc., Kingsport, Tenn.

Swan Mfg. Co., Vancouver, Wash.

Tennessee Plastics, Inc., Johnson City, Tenn.

Thermador Electric Mfg. Co., Div. of Norris Thermador Corp.,

Los Angeles, Calif.

Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc.,

Danvers, Mass.

Vulcan Radiator Co., Hartford, Conn.

Westinghouse Electric Corp., Air Conditioning Div., Staunton,

Va.

Wiegand Co., Edwin L., Pittsburgh, Pa.

Zell-Aire Corp., Reading, Pa.

### HEATERS, ELECTRIC, FLOOR

Ceilheat, Inc., Knoxville, Tenn. Electrovector, Inc., Brooklyn, N. Y. Martin Stamping & Stove Co., Huntsville, Ala. Wiegand Co., Edwin L., Pittsburgh, Pa.

### HEATERS, ELECTRIC, WALL

Acme Electric Heating Co., Boston, Mass.
Allied Precision Industries, Inc., Geneva, Ill.
Ampere Industries, Newark, N. J.
Arvin Industries, Inc., Columbus, Ind.
Berko Electric Mfg. Corp., Queens Village, N. Y.
Broan Mfg. Co., Inc., Hartford, Wis.
Can Arm Corp., Champlain, N. Y.
Carrier Corp., Syracuse, N. Y.
Cavalier Corp., Electric Heating Div., Chattanooga, Tenn.
Ceilheat, Inc., Knoxville, Tenn.
Circle-Air Industries, Inc., Brooklyn, N. Y.
Continental Radiant Glass Heating Corp., New York, N. Y.
Dixie Radiant Electric Heat Corp., Atlanta, Ga.
Electrend Products Corp., Subsidiary of St. Joe Machines, Inc.,
St. Joseph, Mich.
Electrovector, Inc., Brooklyn, N. Y.
Emerson Electric Mfg. Co., St. Louis, Mo.
Everwarm, Inc., Knoxville, Tenn.
General Electric Co., Wiring Devices Dept., Providence, R. I.
Hanovia Lamp Div., Engelhard Industries, Inc., Newark, N. J.
Heatmore, Inc., Brooklyn, N. Y.
Hunter Div., Robbins & Myers, Inc., Memphis, Tenn.
Markel Electric Products, Inc., Buffalo, N. Y.
Martin Stamping & Stove Co., Huntsville, Ala.
Matthews Electric Heater Mfg. Co., Albertville, Ala.
Meier Electric, Indianapolis, Ind.
Modernheat Cable Corp., Kingsport, Tenn.
Sun-Tron Corp., Chicago, Ill.
Tennessee Plastics, Inc., Johnson City, Tenn.
Thermador Electric Mfg. Co., Div. of Norris-Thermador Corp.,
Los Angeles, Calif.
Thermo-Ray Corp., Newark, N. J.
Trade-Wind Div., Robbins & Myers, Inc., Pico Rivera, Calif.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Wiegand Co., Edwin L., Pittsburgh, Pa.

#### HEATERS, SUSPENDED, RADIANT, GAS FIRED

Panelbloc Div., Bettcher Mfg. Co., Cleveland, O. Perfection Industries, Div. of Hupp Corp., Cleveland, O.

### HEATERS, UNIT, ELECTRIC HEATING ELEMENT

Berko Electric Mfg. Corp., Queens Village, N. Y. Electromode Div. of Commercial Controls Corp., Rochester, N. Y. Ilg Electric Ventilating Co., Chicago, Ill. Sunwarm, Inc., Kingsport, Tenn. Wiegand Co., Edwin L., Pittsburgh, Pa.

Wing Mfg. Div., L. J., Aero Supply Mfg. Co., Inc., Linden, N. J. Zell-Aire Corp., Reading, Pa.

# HEATERS, UNIT, FOR INSTALLATIONS REQUIRING DUCTWORK

See Furnaces, Forced Warm Air

# HEATERS, UNIT, GAS, PROPELLER FAN TYPE

Airtherm Mfg. Co., St. Louis, Mo.
Allan Engineering Co., Dallas, Tex.
American Furnace Co., St. Louis, Mo.
American-Standard Industrial Div., Detroit, Mich.
Bryant Mfg. Co., Indianapolis, Ind.
Carrier Corp., Syracuse, N. Y.
Coroaire Heater Corp., Cleveland, O.
Crane Co., Chicago, Ill.
Day & Night Mfg. Co., La Puente, Calif.
Dravo Corp., Maspeth, N. Y.
Gaffers & Sattler, Los Angeles, Calif.
Grinnell Co., Inc., Providence, R. I.
Hastings Air Conditioning Co., Hastings, Nebr.
Hastings Air Conditioning Co., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Henry Furnace Co., The, Medina, O.
Humphrey Div., Arkla Air Conditioning Corp., Little Rock, Ark.
Ilg Electric Ventilating Co., Chicago, Ill.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Kisco Boiler & Engineering Co., St. Louis, Mo.
Lennox Industries, Inc., Marshalltown, Ia.
Lundt, Inc., Ernest C., Little Falls, N. J.
Modine Mfg. Co., Racine, Wis.
Mueller Climatrol, Milwaukee, Wis.
National-U. S. Radiator Corp., Johnstown, Pa.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.
Nesbitt, Inc., John J., Philadelphia, Pa.
Norman Products Co., Columbus, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Payne Co., The, La Puente, Calif.
Peerless Mfg. Div., Dover Corp., Louisville, Ky.
Reznor Mfg. Co., Mercer, Pa.
Roberts-Gordon Appliance Corp., Buffalo, N. Y.
Rybolt Heater Co., Ashland, O.
Temo, Inc., Nashville, Tenn.
Trane Co., The, La Crosse, Wis.
Tuck-Aire Furnace Co.. San Francisco, Calif.
United States Air Conditioning Corp., Delaware, O.
Vacuum Gas Burner Co., Olean, N. Y.
Webster & Co., Warren, Camden, N. J.
Westinghouse Electric Corp., Sturtevant Div., Hyde Park, Boston, Mass.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J.
Young Radiator Co., Racine, Wis.
Zink Co., John, Tulsa, Okia.

### HEATERS, UNIT, OIL, PROPELLER FAN TYPE

Ilg Electric Ventilating Co., Chicago, Ill. Interstate Heater Mfg. Co., Denver, Colo. Lennox Industries, Inc., Marshalltown, Ia.

#### HEATERS, VENTILATION MAKEUP AIR UNITS

See Units, Makeup Air, Heating and Ventilating, Horizontal Package Type

#### HEATERS, WATER, DOMESTIC, ELECTRIC

American Radiator & Standard Sanitary Corp., Plumbing and Heating Div., New York, N. Y. Appliance Div., Motor Wheel Corp., Lansing, Mich. Bastian-Morley Co., Inc., La Porte, Ind. Bock Corp., Madison, Wis. Bowen Water Heater Div., Handling Equipment Mfg. Corp., Wixom, Mich. Buckeye Water Heater Co., Cleveland, O. Clayton & Lambert Mfg. Co., Louisville, Ky.
Cleveland Heater Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Day & Night Mfg. Co., La Puente, Calif.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Fairbanks, Morse & Co., Chicago, Ill.
Frigidaire Div., General Motors Corp., Dayton, Ohio.
General Fittings Co., Providence, R. I.
Hotstream Heater Co., Cleveland, Ohio.
Hynes & Cox Electric Corp., Burnt Hills, N. Y.
Jackson Mfg. Co., Inc., W. L., Chattanooga, Tenn.
Kelvinator Div., American Motors Corp., Detroit, Mich.
Koven & Bro., Inc., L. O., Jersey City, N. J.
Lawson Mfg. Co., New Kensington, Pa.
Little Burner Co., Inc., H. C., San Rafael, Calif.
Luxra Co., Atchison, Kans.
McGraw-Edison Co., Clark Div., Chicago, Ill.
Mor-Flo Heater Corp., Cleveland, O.
National Appliances, Inc., New Kensington, Pa.
National Steel Construction Co., Seattle, Wash.
National-U. S. Radiator Corp., Johnstown, Pa.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Perfection Industries, Inc., Cleveland, Ohio.
Pioneer Water Heater Corp., Los Angeles, Calif.
Precision Parts Corp., Nashville, Tenn.
Rheem Mfg. Co., Chicago, Ill.
Sands Mfg. Co., Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Spickler Co., Inc., R. D. Mamaroneck, N. Y.
State Stove and Mfg. Co., Nashville, Tenn.
Thermador Electrical Mfg. Co. Div. of Norris-Thermador
Corp., Los Angeles, Calif.
Wagoner Corp., Nashville, Tenn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Westinghouse Electric Corp., Pittsburgh, Pa.
Wood Co., John, Conshohocken, Pa.
Whitehead Mfg. Corp., D. W., Trenton, N. J.
Whitehead Mfg. Corp., Middleville, Mich.

# HEATERS, WATER, DOMESTIC, GAS FIRED (ALSO LP GAS)

Aldrich Co., Wyoming, Ill.

American Appliance Mfg. Corp., Santa Monica, Calif.

American Radiator & Standard Sanitary Corp., Plumbing and

Heating Div., New York, N. Y. Heating Div., New York, N. Y.

American & Southern Corp., Nashville, Tenn.

Appliance Div., Motor Wheel Corp., Lansing, Mich.

Bastian Mfg. Co., W. B., Los Angeles, Calif.

Bastian-Morley Co., Inc., LaPorte, Ind.

Bock Corp., Madison, Wis.

Bowen Water Heater Div., Handling Equipment Mfg. Corp.

Wiscon, Mich. Wixom, Mich. Bryant Mfg. Co., Indianapolis, Ind.
Buckeye Water Heater Co., Cleveland, Ohio.
Cirklair Products Div. Folsom Co., Inc., Dallas, Texas.
Clayton & Lambert Mfg. Co., Louisville, Ky.
Cleveland Heater Co., Cleveland, Ohio. Coleman Co., Inc., Wichita, Kans. Crane Co., Chicago, Ill. Day & Night Mfg. Co., La Puente, Calif. Day & Night Mrg. Co., La Puente, Calif.

Dearborn Stove Co., Dallas, Tex.

Delco Appliance Div. General Motors Corp., Rochester, N. Y

EverHot Heater Co., Detroit, Mich.

Fairbanks, Morse & Co., Chicago, Ill.

Gaffers & Sattler, Los Angeles, Calif.

Handley-Brown Co., Jackson, Mich. (With circulating fan for augmenting central heating systems) Harrison Sheet Steel Co., Chicago, Ill. Hedges Mfg. Co., Inc., M. M., Chattanooga, Tenn. Hi-Qua Mfg. Co., Inc., Philadelphia, Pa. Holly-General Co., Pasadena, Calif.
Hotstream Heater Co., Cleveland, Ohio.
Hoyt Heater Co. of No. Calif., Oakland, Calif.
Jackson Mfg. Co., Inc., W. L., Chattanooga, Tenn.
Koven & Bro., Inc., L. O., Jersey City, N. J.
Lawson Mfg. Co., New Kensington, Pa.
Little Burner Co., Inc., H. C., San Rafael, Calif. Lovekin Water Heater Co., Philadelphia, Pa Luxra Co., Atchison, Kans. McDaniel Mfg. Co., Inc., Dallas, Texas. McGraw-Edison Co., Clark Div., Chicago, Ill. Mor-Flo Heater Corp., Cleveland, O. Mustee Heater Co., Cleveland, Ohio. National Appliances, Inc., New Kensington, Pa.

National Steel Construction Co., Los Angeles, Calif.
National-U. S. Radiator Corp., Johnstown, Pa.
Pacific Water Heater Corp., San Gabriel, Calif.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Perfection Industries, Inc., Cleveland, O.
Pioneer Water Heater Corp., Los Angeles, Calif.
Queen Products Div., King-Seeley Corp., Albert Lea, Minn.
Radiant Utilities Corp., Brooklya, N. Y.
Ray Oil Burner Co., San Francisco, Calif.
Republic Heater Corp., Huntington Park, Calif.
Rheem Mfg. Co., Chicago, Ill.
Ruud Mfg. Co., Chicago, Ill.
Ruud Mfg. Co., Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southern Heater Corp., Compton, Calif.
Spickler Co., Inc., R. D., Mamaroneck, N. Y.
State Stove and Mfg. Co., Nashville, Tenn.
SuperbO Mfg. Co., Los Angeles, Calif.
Switson Industries Ltd., Welland, Ont., Canada
Trageser Copper Works, Inc., Jamaica, N. Y.
Wagoner Corp., Nashville, Tenn.
Wayne Home Equipment Co., Inc., Fort Wayne, Ind.
Whithe Products Corp., Middleville, Mich.
Wood Co., John, Conshohocken, Pa.

# HEATERS, WATER, DOMESTIC, OIL FIRED

Aldrich Co., Wyoming, Ill.
Allen Mfg. Co., Inc., Nashville, Tenn.
American Mohawk Div., Burner Mfg. Corp. of America, New York, N. Y.
Appliance Div., Motor Wheel Corp., Lansing, Mich.
Bock Corp., Madison, Wis.
Buckeye Water Heater Co., Cleveland, O.
Carlin Co., The, Wetherfield, Conn.
Century Engineering Corp., Cedar Rapids, Iowa.
Coleman Co., Inc., Wichita, Kans.
Crane Co., Chicago, Ill.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Eckhart Mfg. Co., Inc., Union, N. J.
Electrol Burner Mfg. Co., Rutherford, N. J.
Gilmore & Co., Jackson G., Columbus, Ohio.
Hotstream Heater Co., Cleveland, O.
Johnson Co., S. I., Oakland, Calif. & Philadelphia, Pa.
Kresky Mfg. Co., Inc., Petaluma, Calif.
Kresno-Stamm Mfg. Co., New York, N. Y.
Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa.
Petro Div., Iron Fireman Mfg., Co., Cleveland, O.
Preferred Utilities Mfg. Corp., New York, N. Y.
Queen Products Div., King-Seeley Corp., Albert Lea, Minn.
Quiet Automatic Burner Corp., Newark, N. J.
Quiet-Heet Div., Burner Mfg. Corp. of America, New York, N. Y.
Radiant Utilities Corp., Brooklyn, N. Y.
Ray Oil Burner Co., San Francisco, Calif.
Reif-Rexoil. Inc., Buffalo, N. Y.
Republic Products Co., Philadelphia, Pa.
Rheem Mfg. Co., Chicago, Ill.
Silent Automatic Products, Cleveland, O.
Toridheer Div., Cleveland Steel Products Corp., Cleveland, O.
Viking Mfg. Corp., Cleveland, Ohio.
Volcano Burner Mfg. Inc., New York, N. Y.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.

# HEATERS, WATER, DOMESTIC, STOKER FIRED

Gehl Bros. Mfg. Co., West Bend, Wis.

### HEATING COILS

See Colls, Heating

### **HEAT PUMPS**

See Unitary Air Conditioners, Year 'Round, Heat Pump

### HEAT PUMP SWITCHING VALVES

See Valves, Switching, Heat Pump

#### **HEAT RECOVERERS**

See Recoverers, Heat, Smoke Pipe

#### HEAT STORAGE UNITS

See Units, Heat Storage, Furnace

#### HIGH VELOCITY AIR SYSTEM PIPE

See Ducts, Spiral, Welded

# HIGH VELOCITY MIXING UNITS, SOUND AND VOLUME CONTROL, FOR DOUBLE DUCT HIGH VELOCITY AIR CONDITIONING SYSTEMS

See Units, Mixing, Sound and Volume Control, for Double Duct High Velocity Air Conditioning Systems

### HOISTS, HAND AND POWER

American Engineering Co., Philadelphia, Pa. (Power, electric)
American Gage & Mfg. Co., Dayton, O. (Hand)
American MonoRail Co., Cleveland, Ohio. (Electric)
Bridgeport Chain & Mfg. Co., Bridgeport, Conn.
Chester Hoist Div., National Screw & Mfg. Co., Lisbon, O. (Hand & power) Chicago Pneumatic Tool Co., New York, N. Y. (Power) Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y. Cleveland Crane & Engineering Co., Wickliffe, Ohio. (Hand & electric) Cullen-Friestedt Co., Chicago, Ill. (Power sheet lifter)
Detroit Hoist & Machine Co., Detroit, Mich.
Downs Crane & Hoist Co., Los Angeles, Calif. (Power)
Euclid Crane & Hoist Co., Euclid, Ohio. (Electric) Gardner-Denver Co., Quincy, Ill. (Power)
Grand Specialties Co., Chicago, Ill.
Harnischteger Corp., Milwaukee, Wis. (Electric & hand) Hastings Air Control, Inc., Omaha, Nebr.
Industrial Brownhoist Corp., Bay City, Mich.
Ingersoll-Rand Co., New York, N. Y. (Compressed air powered) Lantz Mfg. Co., Inc., Valparaiso, Ind. (For sheet metal ducts only, hand operated) Lug-All Co., Haverford, Pa. McCollum Hoist & Mfg. Co., Downers Grove, Ill. Multiple Corp., Dayton, O. Ohio Hoist Mfg. Co., Lisbon, O. (Hand & power) Philadelphia Hoist Div. of Industrial Enterprises, Inc., Doylestown, Pa. Reading Crane & Hoist Corp., Reading, Pa. (Hand & power, electric) Robbins & Myers, Inc., Springfield, Ohio. (Hand & power) Shepard Niles Crane & Hoist Corp., Montour Falls, N. Y. (Pneumatic, electric, manual) Stephens-Adamson Mfg. Co., Aurora, Ill. Thor Power Tool Co., Aurora, Ill. (Power)
Wright Hoist Div. American Chain & Cable Co., York, Pa (Electric)

### HOODS, DRAFT, GAS

Yale & Towne Mfg. Co., Philadelphia, Pa.

See Draft Diverters, Gas Heater

### HOODS, FUME DISPOSAL, CORROSION RESISTANT

Acme-Fisher Div., Broadway Rubber Corp., Louisville, Ky. Argo Plastic Products, Cleveland, O. Ceilcote, Inc., Cleveland, O. Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works Co., Cleveland, O. Corite Products Inc., Chicago, Ill. (Plastic) Drying Systems Co., Chicago, Ill. (Plastic) Drying Systems Co., Chicago, Ill. (Goodrich Industrial Products Co., B. F., Koroseal Div., Marietta, O. Haveg Corp., Wilmington, Del. Heil Process Equipment Corp., Cleveland, O. Industrial Plastic Fabricators, Inc., Norwood, Mass. Kaykor Industries, Inc., Yardville, N. J.

Laminated Sheet Products Corp., Norwood, Mass.
 & C Mfg. Co., Cincinnati, O.
 South Bend Air Products, Inc., South Bend, Ind. (Monel, stainless steel, PVC, etc.)

### HOODS, VENTILATING, FOR KITCHENS

Air Control Products, Inc., Coopersville, Mich.
Berns Air King Corp., Chicago, Ill.
Carey Mfg. Co., Philip, Lockland, Cincinnati, O.
Chelsea Fan & Blower Co., Inc. Plainfield, N. J.
Emerson Electric Mfg. Co., St. Louis, Mo.
Emerson-Pryne Co., Pomona, Calif.
Fasco Industries, Inc., Rochester, N. Y.
Marvin Electric Mfg. Co., Los Angeles, Calif.
Morrison Products, Inc., Cleveland, O.
NuTone, Inc., Cincinnati, O.
Stanthony Corp., Los Angeles, Calif. (Metal)
Stewart Industries, Inc., Indianapolis, Ind.
Trade-Wind Div., Robbins & Myers, Inc., Pico Rivera, Calif. (Metal)
United Sheet Metal Co., Inc., Columbus, O.
Universal Blower Co., Birmingham, Mich.
Ventrola Mfg. Co., Owosso, Mich.

# HOOKS, CONDUCTOR PIPE

Berger Bros. Co., Philadelphia, Pa. Hussey & Co., C. G., Pittsburgh, Pa. Inland Steel Products Co., Milwaukee, Wis. Klauer Mfg. Co., Dubuque, Ia.

### HOSE AND FITTINGS, METAL, FLEXIBLE

American Brass Co., Waterbury, Conn.
Anaconda Metal Hose Div., American Brass Co., Waterbury, Conn.
Cobra Metal Hose Div., D K Mfg. Co., Chicago, Ill.
Everhot Products Co., Chicago, Ill.
Flexaust Co., New York, N. Y.
Flexonics Corp., Maywood, Ill.
Hunt Valve Co., Salem, Ohio
International Metal Hose Co., Bellevue, O.
Korfund Co., Long Island City, N. Y.
Packless Metal Hose, Inc., Mt. Vernon, N. Y.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Seamlex Co., Inc., Long Island City, N.Y.
Tieffex, Inc., Springfield, Mass.
United Metal Hose Co., Inc., Long Island City, N. Y.
Universal Metal Hose Co., Inc., Long Island City, N. Y.
Universal Metal Hose Co., Chicago, Ill.
Weatherhead Co., Ft. Wayne Div., Ft. Wayne, Ind.

#### HOSE, REFRIGERANT CHARGING

Airserco Mfg. Co., Pittsburgh, Pa.
American Brass Co., Waterbury, Conn.
Henry Valve Co., Melrose Park, III.
Imperial Brass Mfg. Co., Chicago, III.
Madden Brass Products, Aurora, III.
McIntire Co., Livingston, N. J.
Mueller Brass Co., Port Huron, Mich.
Superior Valve and Fittings Co., Pittsburgh, Pa.
Techniflex Corp., Port Jervis, N. Y.
Titeflex, Inc., Springfield, Mass.
Weatherhead Co., Fort Wayne Div., Ft. Wayne, Ind.

#### HOUSINGS, BLOWER AND FAN

Air Controls, Inc., Cleveland, Ohio.
Airfan Engineering Co., Los Angeles, Calif. (Centrifugal)
Ammerman Co., Inc., Stillwater, Minn.
Bary Blower Co., Minneapolis, Minn.
Brookside Corp., McCordsville, Ind.
Brundage Co., Kalamazoo, Mich.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Commercial Shearing & Stamping Co., Youngstown, Ohio.
Corite Products Inc., Chicago, Ill. (Plastic and plastic coated)
DeBothezat Fans Div., American Machine & Metals, Inc.,
East Moline, Ill.

Detroit Stamping Co., Detroit, Mich.
Garden City Fan Co., Niles, Mich. (Centrifugal)
Haveg Corp., Wilmington, Del. (Plastic)
Hayeg Metal Products Co., The, Swanton, O.
Industrial Plastic Fabricators, Inc., Norwood, Mass. (Plastic)
Jan-Air, Inc., Richmond, Ill.
Lau Blower Co., Dayton, Ohio.
Martin Fan & Blower Co., Chicago, Ill.
Morrison Products, Inc., Cleveland, O.
Nelson Products, Herman, American Air Filter Co., Inc., Louisville, Ky.
Northern Blower Co., Cleveland, Ohio.
Revcor Inc., Carpentersville, Ill.
Rich Fan Mfg. Co., Phil, Houston, Tex. (Fan)
Sandberg Mfg. Co., Portland, Ore.
Torrington Mfg. Co., Torrington, Conn. (Blower)
Trade-Wind Div., Robbins & Myers, Inc., Pico Rivera, Calif.
United States Air Conditioning Corp., Delaware, O.
Utica Products, Inc., Utica, N. Y.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles, Calif.
Viking Air Products Div., National-U. S. Radiator Corp., Cleveland, O.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

#### **HUMIDIFIER FITTINGS**

See Fittings, Humidifler, Water Line

### HUMIDIFIER PLATES

See Plates, Humidifier

#### HUMIDIFIER VALVES

See Valves, Shut-off, Humidifler, Water Line

#### HUMIDIFIERS, FURNACE, AUTOMATIC, EVAPORATIVE

Air-Heet Corp., Chicago, Ill.
American Comfort Mfg. Co., Evanston, Ill.
Armstrong Machine Works, Three Rivers, Mich.
Auto-Flo Corp., Detroit, Mich.
Automatic Humidifier Co., Cedar Falls, Iowa.
Books Co., C. D., Madison, Wis.
Century Engineering Corp., Cedar Rapids, Ia.
Char-Gale Mfg. Co., Anoka, Minn.
Cleveland Humidifier Co., Cleveland, Ohio.
Cronstroms Manufacturing, Inc., Minneapolis, Minn.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Econo-Matic Products Co., Inc., Detroit, Mich.
Friend-Pike Sheet Metal & Roofing Co., Sioux City, Ia.
General Filters, Inc., Novi, Mich.
Hansen Tool & Die Co., Milwaukee, Wis.
Keeney Mfg. Co., Newington, Conn.
Maid-O'-Mist, Inc., Chicago, Ill.
Mueller Climatrol, Milwaukee, Wis.
Reliable Equipment & Supply Co., Kenilworth, N. J.
Research Products Corp., Madison, Wis.
Selck & Co., Walter E., Chicago, Ill.
Skuttle Mfg. Co., Milford, Mich. (Standard and electrical immersion element types)
Swan Humidifier Co., Ballston Spa, N. Y.
Viking Air Products Div., National-U. S. Radiator Corp., Cleveland, O.

#### **HUMIDIFIERS, FURNACE, AUTOMATIC, SPRAY**

Arklon Mfg. Co., Cleveland, O.
Automatic Humidifiers Co., Cedar Falls, Ia.
Century Engineering Corp., Cedar Rapids, Iowa.
Cronstroms Manufacturing Inc., Minneapolis, Minn.
HERRmidifier Co., Lancaster, Pa.
Lennox Industries Inc., Marshalltown, Ia.
Lewbill Industries, Inc., Scottdale, Pa.
Little Giant Pump Co., Div. of Little Giant Vaporizer Co., Inc., Oklahoma City, Okla.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Pollen Ex, Chicago, Ill.

Somers, Inc., H. J., Detroit, Mich. Spray Engineering Co., Burlington, Mass. Spraying Systems Co., Chicago, Ill. Walton Laboratories, Inc., Irvington, N. J.

# **HUMIDIFIERS, PORTABLE**

Abbeon Supply Co., Jamaica, N. Y.
Air-Heet Corp., Chicago, Ill.
Burgess Vibrocrafters, Inc., Grayslake, Ill.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
HERRmidifier Co., Lancaster, Pa. Research Products Corp., Madison, Wis.
Silver Creek Precision Corp., Silver Creek, N. Y.
Skuttle Mfg. Co., Milford, Mich. Walton Laboratories, Inc., Irvington, N. J.

#### HUMIDISTATS

See Controls

#### **HUMIDITY RECORDERS**

See Recorders, Humidity

#### HYGROMETERS

Airguide Instrument Co., Chicago, Ill. Airserco Mfg. Co., Pittsburgh, Pa. American Instrument Co., Inc., Silver Spring, Md. Bristol Co., Waterbury, Conn Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J. Daystrom-Weston Sales Div., Daystrom Inc., Newark, Poxboro Co., Foxboro, Mass.
G. M. Mfg. Co., New York, N. Y.
General Scientific Equipment Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Johnson Service Co., Milwaukee, Wis. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Moeller Instrument Co., Richmond Hill, N. Y. Palmer Thermometers, Inc., Cincinnati, Ohio. Philadelphia Thermometer Co., Philadelphia, Pa. Taylor Instrument Companies, Rochester, N. Y.
Walton Laboratories, Inc., Irvington, N. J.
Weksler Instruments Corp., Freeport, N. Y.

#### INCINERATORS

Adams Co., The, Dubuque, Ia. Appliance Div., Motor Wheel Corp., Lansing, Mich. Autogas Co., Bellwood, Ill. Autogas Co., Bellwood, III.
Bastian-Morley Co., Inc., La Porte, Ind.
Blue-Ray Gas Burner Co., Detroit, Mich.
Bowser, Inc., Cairo, III.
Calcinator Corp., Bay City, Mich.
Comstock-Castle Stove Co., Quincy, III. Coroaire Heater Corp., Cleveland, O. Coroaire Heater Corp., Cleveland, O. Crane Co., Chicago, Ill.

Donley Bros. Co., Cleveland, O.

Dornback Furnace & Foundry Co., Eastlake, O.

General Engineering Co., Bay City, Mich.

Goder Incinerator Corp., Blue Island, Ill.

Harmond Co., Cleveland, O. Heimbach Incinerator Mfg. Co., St. Paul, Minn. Henry Furnace Co., Medina, O. Henry Furnace Co., Medina, O.
Incinerator Products Co., Detroit, Mich.
Kerner Incinerator Div., Morse-Boulger, Inc., New York, N.Y.
Killam Gas Burner Co., Denver, Colo.
King Stove and Range Co., Sheffield, Ala. Locke Stove Co., Kansas City, Mo.
Lyons, Edward W., Youngstown, O.
Majestic Co., Inc., Huntington, Ind.
Martin Stamping & Stove Co., Huntsville, Ala.
Nelson Industries, Pittsburgh, Pa. Olsen Mfg. Co., The C. A., Elyria, O.
Queen Products Div., King-Seeley Corp., Albert Lea, Minn.
Schwab Furnace Co., Milwaukee, Wis. Schwad Furnace Co., Milwaukee, Wis. Silent Glow Oil Burner Co., Hartford, Conn. Standard Fuel Engineering Co., Detroit, Mich. Syrall Mfg. Co., Syracuse, N. Y. Waste King Corp., Incinerator Div., Cleveland, O.

#### INDICATING THERMOMETERS

See Thermometers, Indicating

#### INJECTOR FOR REMOVING CONDENSATE FROM AIR CONDITIONING UNITS

Condensate Siphon Jet Corp., New York, N. Y.

#### INSULATING CEMENT

See Cement, Insulating

#### INSULATION, BUILDING

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Rockwool) American Flange & Mfg. Co., Inc., New York, N. Y. (Reflective) Mective)

American Hair & Felt Co., Chicago, Ill. (Hair)

American Sisalkraft Corp., Attleboro, Mass. (Reflective)

Armstrong Cork Co., Lancaster, Pa. (Wood fiber, glass fiber)

Baldwin-Ehret-Hill, Inc., Trenton, N. J. (Mineral wool)

Barnhardt Mfg. Co., Charlotte, N. C.

Barrett Div. Allied Chemical & Dye Corp., New York, N. Y.

(Reckweel) (Rockwool) (Rockwool)
Cabot, Inc., Samuel, Boston, Mass.
Carey Co., Philip, Lockland, Cincinnati, Ohio. (Mineral wool, spun rock wool)
Celotex Corp., Chicago, Ill.
Chamberlin Co. of America, Detroit, Mich. (Rockwool)
Dow Chemical Co., Midland, Mich. (Plastic)
Dyfoam Corp., New Castle, Pa. (Expanded polystyrene)
Eagle-Picher Co., Cincinnati, Ohio. (Mineral Wool)
Flintkote Co., New York, N. Y. (Fibre board & insulating wool)
Forest-Wool Insulation Co., Inc., Marshall, Mich.
Forty-Eight Insulations, Inc., Aurora, Ill. (Mineral wool)
Hagan Mfg. Co., Delphos, O.
Infra Insulation, Inc., New York, N. Y. (Accordion aluminum and paper)
Insul-Cell Mfg. Co., Muncie, Ind. (Cellulose fiber)
Insulite Div. Minnesota & Ontario Paper Co., Minneapolis, Minn. (Wood fibre) Mann. (Wood nore)
Insul-Wood Insulation Co., Council Bluffs, Ia. (Cellulose fiber)
Johns-Manville, New York, N. Y.
Johns-Manville Fiber Glass Inc., Toledo, O. (Glass fiber)
Lockport Mills Inc., Lockport, N. Y. (Blanket)
Ludlow Paper, Inc., Needham Heights, Mass. Ludlow Paper, Inc., Needham Heights, Mass.
Midwest Insulations, Inc., Wabash, Ind. (Mineral wool)
Mineral Wool Insulation, Div. of Better Industries, Inc., Fontana,
Calif. (Rock wool)
Mundet Cork Corp., North Bergen, N. J. (Cork)
National Cork Co., Englewood, N. J. (Cork)
National Gypsum Co., Buffalo, N. Y.
Owens-Corning Fiberglas Corp., New York, N. Y. (Board & blanket) blanket)
Pacific Lumber Co., San Francisco, Calif. (Wood fiber)
Pal-O-Pak Insulation Co., Inc., Hartland, Wis. (Cellulose fibers)
Pittsburgh Corning Corp., Pittsburgh, Pa. (Cellular glass)
Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Cellular glass)
Platsburgh Wall Board Co., Buffalo, N. Y.
Quaker State Metals Co., Lancaster, Pa. (Aluminum reflective)
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
Revere Copper & Brass Inc., Foil Div., Brooklyn, N. Y. (Reflective) flective)
Reynolds Metals Co., Richmond, Va. (Aluminum foil)
Richkraft Co., The, Chicago, Ill. (Reflective)

Toulation Co., Great Falls, Mont. (Ve Richkraft Co., The, Chicago, III. (Reflective)
Robinson Insulation Co., Great Falls, Mont. (Vermiculite)
Ruberoid Co., New York, N. Y. (Aluminum foil and glass fiber)
Silvercote Products, Inc., Chicago, III. (Reflective type)
Sprayo-Flake Co., Chicago, III. (Mineral fiber & adhesive)
Standard Asbestos Mfg. Co., Chicago, III. (Asbestos)
Standard Packaging Corp., Johnston Foil Div., St. Louis, Mo. (Paper backed foil)
Surface Chemicals Inc., McKees Rocks, Pa.
Tennessee Products & Chemical Corp., Nashville, Tenn. (Mineral wool)

eral wool) U.S. Pipe & Foundry Co., Birmingham, Ala. (Rock wool)

United Cork Cos., Kearney, N. J. (Polystyrene, cork and expanded)

United States Gypsum Co., Chicago, Ill. (Mineral wool)
United States Mineral Wool Co., Stanhope, N. J. (Mineral wool)
U. S. Rock Wool Co., Salt Lake City, Utah. (Blowing wool, batt and blanket)

Wilson & Co., Inc., Chicago, Ill. (Hair, Felt)

Wilson, Inc., Grant, Chicago, Ill. (Rock Wool) Wood Conversion Co., St. Paul, Minn. Zonolite Co., Chicago, Ill.

#### INSULATION, DUCT

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Hair & Felt Co., Chicago, Ill. (Hair felt)
Armstrong Cork Co., Lancaster, Pa. (Glass fiber)
Baldwin-Ehret-Hill, Inc., Trenton, N. J. (Mineral wool)
Cabot, Inc., Samuel, Boston, Mass. Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. Celotex Corp., Chicago, Ill. Eagle-Picher Co., Cincinnati, Ohio. Fibreboard Paper Products Corp., San Francisco, Calif. (Magnesia) Forty-Eight Insulations, Inc., Aurora, Ill. (Mineral wool) Gustin-Bacon Mfg. Co., Kansas City, Mo. (Glass fiber) Infra Insulation Inc., New York, N. Y. (Accordion aluminum Infra Insulation Inc., New York, N. Y. (Accordion aluminus and paper)
Insul-Coustic Corp., Maspeth, N. Y. (Preformed glass fiber)
Johns-Manville, New York, N. Y.
Johns-Manville Fiber Glass Inc., Toledo, O. (Glass fiber)
Keystone Asphalt Products Co., Chicago, Ill.
LaClede-Christy Clay Products Co., St. Louis, Mo.
Lockport Mills Inc., Lockport, N. Y. (Blanket)
Miracle Adhesives Corp., Bellmore, L. I., N. Y.
Mortell Co., J. W., Kankakee, Ill. (Asphalt base)
Mundet Cork Corp., North Bergen, N. J. (Cork)
Munn and Steele, Inc., Newark, N. J. (Plastic)
National Cork Co., Englewood, N. J. (Cork)
Nazar Rubber Co., Toledo, O. (Rubber lining)
Nicolet Industries, Inc., Florham Park, N. J.
Nicolet Industries, Inc., Norristown, Pa.
North American Asbestos Corp., Chicago, Ill. (Asbestos) Nicolet Industries, Inc., Norristown, Pa.

North American Asbestos Corp., Chicago, Ill. (Asbestos)

Owens-Corning Fiberglas Corp., New York, N. Y. (Rigid & flexible with facings)

Pittsburgh Corning Corp., Pittsburgh, Pa. (Cellular glass)

Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Cellular Glass)

Quigley Co., Inc., New York, N. Y.

Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill. (Reflective) Refractory & Insulation Corp., New York, N. Y. (Inside duct lining) Reynolds Metals Co., Richmond, Va. (Aluminum foil)
Robinson Insulation Co., Great Falls, Mont.
Ruberoid Co., New York, N. Y. (Asbestos)
Silvercote Products, Inc., Chicago, Ill. (Glass fiber)
Sprayo-Flake Co., Chicago, Ill. (Mineral fiber & adhesive)
Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos)
United Cork Cos., Kearney, N. J. (Cork and expanded)
United States Rubber Co., New York, N. Y. (Sound deaden-Western Felt Works, Chicago, Ill. (Felt)
Wilson & Co., Inc., Chicago, Ill. (Hair & felt)
Wilson, Inc., Grant, Chicago, Ill.
Wood Conversion Co., St. Paul, Minn.

# INSULATION, EDGE, FOR USE BETWEEN PERIMETER OF CONCRETE SLAB AND FOUNDATION WALL

Armstrong Cork Co., Lancaster, Pa. Baldwin-Ehret-Hill, Inc., Trenton, N. J. Celotex Corp., Chicago, Ill. Dow Chemical Co., Midland, Mich. Dyfoam Corp., New Castle, Pa. Forty-Eight Insulations, Inc., Aurora, Ill. Meadows, Inc., W. R., Elgin, Ill. National Gypsum Co., Buffalo, N. Y. Pittsburgh Corning Corp, Pittsburgh, Pa. Plastergon Wall Board Co., Buffalo, N. Y. Standard Asbestos Mfg. Co., Chicago, Ill.

#### INSULATION, FURNACE

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos, rockwool)
Armstrong Cork Co., Lancaster, Pa.
Baldwin-Ehret-Hill, Inc., Trenton, N. J. (Mineral wool and 85% magnesium)
Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. (Asbestos & magnesia)
Eagle-Picher Co., Cincinnati, Ohio.
Fibreboard Paper Products Corp., San Francisco, Calif. (Magnesia and calcium silicate)

Forty-Eight Insulations, Inc., Aurora, Ill. (Mineral wool)
Green Fire Brick Co., A. P., Mexico, Mo. (Mineral wool)
Gustin-Bacon Mfg. Co., Kansas City, Mo. (Glass fiber)
Johns-Manville, New York, N. Y.
Johns-Manville Fiber Glass Inc., Toledo, O. (Glass fiber)
Keasbey & Mattison Co., Ambler, Pa. (Asbestos)
LaClede-Christy Clay Products Co., St. Louis, Mo. (Cement & blocks)
Nicolet Industries, Ins., Florham Park, N. J. (Asbestos)
Nicolet Industries, Inc., Norristown, Pa.
Owens-Corning Fiberglas Corp., New York, N.Y. (Foil faced)
Pittsburgh Corning Corp., Pittsburgh, Pa.
Plibrico Jointess Firebrick Co., Chicago, Ill. (Mineral Wool)
Quigley Co., Inc., New York, N. Y.
Refractory & Insulation Corp., New York, N. Y. (Block, blanket)
Robinson Insulation Co., Great Falls, Mont. (High temperature cement)
Ruberoid Co., New York, N. Y. (Asbestos and calsilite)
Standard Asbestos Mfg. Co., Chicago, Ill. (Asbestos)
U. S. Rock Wool Co., Salt Lake City, Utah. (Rock wool cement)
Wilson, Inc., Grant, Chicago, Ill. (Asbestos)

#### INSULATION, TUBING

Armstrong Cork Co., Lancaster, Pa.
Goodrich Co., B. F., Sponge Products, Shelton, Conn.
Insul-Coustic Corp., Maspeth, N. Y.
Johns-Manville, New York, N. Y.
Miracle Adhesives Corp., Bellmore, L. I., N. Y.
Mortell Co., J. W., Kankakee, Ill. (Tape)
Presstite Div., American-Marietta Co., St. Louis, Mo.
Rubatex Div., Great American Industries, Inc., Bedford, Va.
Virginia Smelting Co., West Norfolk. Va.
Zippertubing Co., The, Los Angeles, Calif.

# INTAKES, OUTDOOR AIR

Eclipse Fuel Engineering Co., Rockford, Ill. Rymco Inc., Detroit, Mich.

#### INTAKES, RETURN AIR

See Faces, Return Air

### KITCHEN AND BATHROOM VENTILATING SYSTEMS (COMPLETE)

See Systems, Ventilating for Kitchens and Bathrooms

#### KITCHEN FANS

See Fans, Kitchen

### LACING MACHINES, METAL

See Machines, Sheet Metal Working, Crimping

# LAMPS, STERILIZING, FOR DUCT INSTALLATION

General Electric Co., Large Lamp Dept., Cleveland, Ohio. Hanovia Lamp Div., Engelhard Industries, Inc., Newark, N. J. Sampson Scientific Corp., Chicago, Ill. Sperti Faraday, Inc., Adrian, Mich. Westinghouse Electric Corp., Bloomfield, N. J.

#### LEAD SHEETS

See Sheets, Metal, Lead

### LETTERS, METAL

Campbell Stainless Products Co., Washington, Pa. (Stainless Steel)
Metalcraft, Inc., Chicago, Ill.
Miller & Doing, Brooklyn, N. Y. (All metals)

Nelson-Harkins Industries, Inc., Chicago, Ill. (Stainless steel, aluminum, brazes, porcelain)
United Stencil Corp., Brooklyn, N. Y. (Aluminum, brass and bronze)

#### LIFTS, SKYLIGHT

Biersach & Niedermeyer Co., Milwaukee, Wis. Levow, Inc., David, South Hackensack, N. J. Main Cornice Works, Inc., Los Angeles, Calif. Park City Cornice Works, Inc., Bridgeport, Conn. Perkinson, William J., Chicago, Ill. Van Noorden Co., E., Boston, Mass. Weiss & Co., H., New York, N. Y.

# LIGHTER TUBES, GAS

See Controls, Pilot, Gas Burner

#### LIMIT CONTROLS

See Controls, Limit

### LININGS, BLOW PIPE

Goodyear Tire and Rubber Co., Inc., Akron, O.

#### LININGS, CHIMNEY

Acme Mfg. Co., Philadelphia, Pa. (Stainless steel)
Armstrong Fittings Co., Des Moines, Ia. (Stainless steel and aluminum)
Condensation Engineering Corp., Chicago, Ill. (Vitreous enamel)
Excelsior Steel Furnace Co., Chicago, Ill. (Stainless steel)
Hart & Cooley Mfg. Co., Holland, Mich.
Labeled Metal Products Corp., Broadwiew, Ill. (Stainless steel)
Majestic Co., Inc., Huntington, Ind. (Cleanout unit)
Wallace Co., William, Metalbestos Div., Belmont, Calif.

#### LINKAGE SETS, DAMPER

See Sets, Damper Linkage

#### LINKS, FUSIBLE

Empire Metal Co., Syracuse, N. Y.
Hinden Products Co., Rockaway Park, N. Y.
Morse-Smith-Morse Co., Watertown, Mass.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Steffens-Amberg Co., Newark, N. J.
Westinghouse Electric Corp., Pittsburgh, Pa.
Wind-Way Fan & Ventilator Co., New Orleans, La.

### LOCKERS, METAL (BINS, SHELVING, ETC.)

Lyon Metal Products, Inc., Aurora, Ill. Penco Div., Alan Wood Steel Co., Oaks, Pa. Republic Steel Corp., Cleveland, O.

#### LOCK FORMERS

See Machines, Sheet Metal Working, Pittsburgh Lock Forming; Machines, Sheet Metal Working, Lock Forming

#### LOCK OPENERS

See Machines, Sheet Metal Working, Pittsburgh Lock Opening

# LOUVERS AND SHUTTERS, AUTOMATICALLY OR MANUALLY CONTROLLED

Acme Engineering & Mfg. Corp., Muskogee, Okla.

Aerovent Fan Co., Inc., Piqua, O.

Air Conditioning Engineering Co., Cambridge, Mass.

Air Conditioning Froducts Co., Detroit, Mich.

Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio.

Air-Factors, Inc., Monrovia, Calif. Airmaster Corp., Chicago, Ill. Airolite Co., Marietta, O. Air-Path Products Co., Baltimore, Md.
Air-Rath Products Co., Baltimore, Md.
Air & Refrigeration Corp., New York, N. Y.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Coolair Corp., Jacksonville, Fla.
American Warming & Ventilating Co., Toledo, Ohio.
American Co., Inc., Stillwater, Minn. Arex Co., Chicago, Ill. Belco Industries, Inc., St. Louis, Mo. Berns Air King Corp., Chicago, Ill.
Bertram Co., Harvey P., Cincinnati, Ohio.
Biersach & Niedermeyer Co., Milwaukee, Wis.
Black Mfg. Co., Baltimore, Md.
Bowman Steel Corp., Pittsburgh, Pa.
Brisk Metal Products Div., Brisk Waterproofing Co., Ridgefield, Buffalo Forge Co., Buffalo, N. Y. Burt Mfg. Co., Akron, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Cirklair Products Div., Folsom Co., Inc., Dallas, Tex.
Clay Equipment Corp., Cedar Falls, Iowa.
Colt Ventilation of America, Inc., Los Angeles, Calif.
Commercialaire Corp. of America, Brooklyn, N. Y.
Construction Specialties Inc., Cranford N. I. Construction Specialties, Inc., Cranford, N. J. Construction Specialties, Inc., Cranford, N. J.
Controlair Mfg. Co., Los Angeles, Calif.
Duro-Dyne Corp., Farmingdale, N. Y.
Eagle-Picher Co., Cincinnati, Ohio.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Elgo Shutter & Mfg. Co., Detroit, Mich.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Frigid, Inc., Brooklyn, N. Y.
General Blower Co., Subsidiary of Ilg Electric Ventilating Co.,
Moston Grove. Ill. Morton Grove, Ill. Morton Grove, III.

Higgins Metal Products Co., The, Swanton, O.

Hunter Div., Robbins & Myers, Inc., Memphis, Tena.

Imperial Damper Co., New York, N. Y.

International Engineering, Inc., Dayton, Ohio.

Jordan & Co., Inc., Paul R., Indianapolis, Ind.

Kirk & Blum Mfg. Co., Cincinnati, Ohio.

Lakewood Engineering & Mfg. Co., Chicago, III.

Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.

Maple City Furnace Co., Monmouth, III.

Martin Fan & Blower Co., Chicago, III.

Meier Electric, Indianapolis, Ind.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Mairth Fah & Biower Co., Cattago, III.

Meier Electric, Indianapolis, Ind.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Morrison Products, Inc., Cleveland, O.

Overly Mfg. Co., Greensburg, Pa.

Palmer Engineering Co., Fan Div., Green Bay. Wis.

Peerless Electric Div., The H. K. Porter Co., Warren, Ohio

Perkinson, William J., Chicago, III.

Reed Unit-Fans, Inc., New Orleans, La.

Rich Fan Mfg. Co., Phil, Houston, Tex.

Rittling Corp., Buffalo, N. Y.

Robertson Co., H. H., Pittsburgh, Pa.

Senrac, Madison, Wis.

Simpson Co., Oakland, Calif.

Standard Electric Mfg. Co., Inc., West Berlin, N. J.

Standard Stamping & Perforating Co., Chicago, Ill.

Swartwout Fabricators, Inc., Kokomo, Ind.

Thermotank, Inc., Detroit, Mich. (For high velocity systems)

Titus Mfg. Corp., Waterloo, Iowa.

Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,

Conn. Conn. United Sheet Metal Co., Inc., Columbus, O. United States Register Co., Battle Creek, Mich. Uno Ventilator Co., Malden, Mass. Van Noorden Co., E., Boston, Mass. Ventilouver Co. Inc., Chicago, Ill. Warner Ventilator Co., LeGrange, Ind. Whirlwind Mfg. Co., Houston, Tex. Wing Mfg. Div., L. J., Aero Supply Mfg. Co. Inc., Linden, N. J Young Regulator Co., Cleveland, Ohio.

#### LOUVERS, STATIONARY

Aerovent Fan Co., Inc., Piqua, O.
Air Conditioning Engineering Co., Cambridge, Mass.
Air Conditioning Products Co., Detroit, Mich.
Air Control Products, Inc., Coopersville, Mich.
Air-Factors, Inc., Monrovia, Calif.
Air-Path Products Co., Baltimore, Md.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Foundry & Furnace Co., Bloomington, Ill.

American Metal Works, Inc., New Orleans, La. American Warming & Ventilating Co., Toledo, Ohio. Ammerman Co., Inc., Stillwater, Minn. Ammerman Co., Inc., Stillwater, Minn.
Appleton Supply Co., Inc., Appleton, Wis.
Arex Co., Chicago, Ill.
Auer Register Co., Cleveland, O.
Barber-Colman Co., Rockford, Ill.
Berns Air King Corp., Chicago, Ill.
Bowman Steel Corp., Pittsburgh, Pa.
Brisk Metal Products Div., Brisk Waterproofing Co., Ridgefield, N. J.
Burt Mfg. Co., Akron, Ohio.
Carnes Corp., Verona, Wis.
Cirklair Products Div., Folsom Co., Inc., Dallas, Tex.
Colt Ventilation of America, Inc., Los Angeles, Calif.
Construction Specialties, Inc., Craford, N. J.
Donley Bros. Co., Cleveland, O.
Elgo Shutter & Mfg. Co., Detroit, Mich.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Felter Co., John, Houston, Tex. Empire Ventilation Equipment Co., Long Island Felter Co., John, Houston, Tex.
Firecraft Corp., Chicago, Ill.
Frigid, Inc., Brooklyn, N. Y.
Higgins Metal Products Co., The, Swanton, O.
Hohmann & Barnard, Inc., New York, N. Y.
Imperial Damper Co., New York, N. Y.
Industrial Equipment Co., The, Minster, O.
Inland Steel Products Co., Milwaukee, Wis.
Kirk & Blum Mfg. Co., Cincinnati, O. Kirk & Blum Mfg. Co., Cincinnati, O. Labeled Metal Products Corp., Broadview, Ill. Labeled Metal Products Corp., Broadview, Ill.
Leslie Welding Co., Inc., Chicago, Ill.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Maple City Furnace Co., Monmouth, Ill.
Martin Fan & Blower Co., Chicago, Ill.
Molloy Machine Corp., Chicago, Ill.
Muckle Mfg. Co., Owatonna, Minn.
National Gypsum Co., Buffalo, N. Y.
Perkinson, William J., Chicago, Ill.
Rich Fan Mfg. Co., Phil, Houston, Tex.
Robertson Co., H. H., Pittsburgh, Pa.
Senrac, Madison, Wis. Robertson Co., H. H., Pittsburgh, Pa.
Senrac, Madison, Wis.
Simpson Co., Oakland, Calif.
Steelcraft Mfg. Co., Rossmoyne, O.
Swartwout Fabricators, Inc., Kokomo, Ind.
Titus Mfg. Corp., Waterloo, Iowa.
United Sheet Metal Co., Inc., Columbus, O.
United States Gypsum Co., Chicago, Ill.
United States Register Co., Battle Creek, Mich.
Ling Vertilator Co., Malden, Mass. Uno Ventilator Co., Malden, Mass.
Van Noorden Co., E., Boston, Mass.
Ventilouver Co. Inc., Chicago, Ill.
Waterloo Register Co., Inc., Waterloo, Ia.

### LOUVERS, SUN REFLECTING

Brisk Metal Products Div., Brisk Waterproofing Co., Ridgefield, N. J.
Construction Specialties, Inc., Cranford, N. J.
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Kawneer Co., Niles, Mich.
Mapes Industries Inc., Lincoln, Nebr.
Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.
Van Noorden Co., E., Boston, Mass.

# MACHINERY, SHEET METAL, REBUILT AND USED

#### Capacity 10 ga or lighter

Acme Equipment Co., Inc., Chicago, Ill.
Burns Machinery Co., F. W., Milwaukee, Wis.
Federal Machinery Co., New York, N. Y.
Harris Machinery Co., M. incapolis, Minn.
Interstate Machinery Co., Inc., Chicago, Ill.
Meyer Sheet Metal Machinery Co., Los Angeles, Calif.
Packham Crimper Co., Mechanics-Burgh, O.
Potts-Farrington Co., Philadelphia, Pa.
Reiner & Campbell Co., Inc., Newark, N. J.
St. Louis Tool Co., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, ANGLE IRON BENDING

Diesel Power, Inc., Greenville, Pa. Excelsior Tool & Machine Co., East St. Louis, Ill. Hendley & Whittemore Co., Beloit, Wis. Hossfeld Mfg. Co., Winona, Minn. Kane & Roach, Inc., Syracuse, N. Y. O'Neil-Irwin Mfg. Co., Lake City, Minn. Pedrick Tool & Machine Co., Philadelphia, Pa. Whitney Metal Tool Co., Rockford, Ill.

#### MACHINES, SHEET METAL WORKING, BAR FOLDING, HAND

Fallsington Mfg. Co., Fallsington, Pa. Lockformer Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
St. Louis Tool Co., St. Louis, Mo.
Smith, R. E., Waukegan, Ill.
Vyke Mfg. Co., Denver, Colo.

# MACHINES, SHEET METAL WORKING, BEADING, HAND

Niagara Machine & Tool Works, Buffalo, N. Y. Packham Crimper Co., Mechanics-Burgh, Ohio. Peck, Stow & Wilcox Co., Southington, Conn. Robertson Machine and Foundry, Buffalo, N. Y.

#### MACHINES, SHEET METAL WORKING, BEADING, POWER

American Pullmax Co., Inc., Chicago, Ill.

Fallsington Mfg. Co., Fallsington, Pa.

Kane & Roach, Inc., Syracuse, N. Y.

Kling Bros. Engineering Works, Chicago, Ill.

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., Southington, Conn.

Swaine Mfg. Co., Fred J., St. Louis, Mo.

#### MACHINES, SHEET METAL WORKING, BENDERS

Champion Blower & Forge Co., Lancaster, Pa.
Diesel Power, Inc., Greenville, Pa.
Excelsior Tool & Machine Co., East St. Louis, Ill. (Circular bending)
Hendley & Whittemore Co., Beloit, Wis.
Hossfeld Mfg. Co., Winona, Minn.
Kane & Roach, Inc., Syracuse, N. Y.
Kling Bros. Engineering Works, Chicago, Ill.
Kaights Co., James, Sandwich, Ill.
Martens & Stormoen, West Quincy, Mass.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Sebrell Corp., J. B., Los Angeles, Calif.
Smith, R. E., Waukegan, Ill.
Whitney Metal Tool Co., Rockford, Ill.

#### MACHINES, SHEET METAL WORKING, BRAKES, HAND

Acme Equipment Co., Inc., Chicago, Ill.
Berkroy Products Co., Los Angeles, Calif.
Dreis & Krump Mfg. Co., Chicago, Ill.
Lake Erie Machinery Corp., Buffalo, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Smith, R. E., Waukegan, Ill.
Stueck, Inc., W. Whitney, Old Saybrook, Conn.
Ward Machinery Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, BRAKES, PORTABLE

Berkoy Products Co., Los Angeles, Calif.
Dreis & Krump Mtg. Co., Chicago, Ill.
Fayette Mfg. Co., Morenci, Mich.
Haulette Div., Fayette Mfg. Co., Morenci, Mich.
Miller-Knuth Mfg. Co., Auburn, Nebr.
Niagara Machine & Tool Works, Buffalo, N. Y.

O'Neil-Irwin Mfg. Co., Lake City, Minn. Peck, Stow & Wilcox Co., Southington, Conn. Smith, R. E., Waukegan, Ill. Stueck, Inc., W. Whitney, Old Saybrook, Conn. Vyke Mfg. Co., Denver, Colo. Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, BRAKES, POWER

Bath Co., Cyril, Solon, O.
Cincinnati Shaper Co., Cincinnati, O.
Cieveland Crane & Engineering Co., Wickliffe, Ohio.
Dreis & Krump Mig. Co., Chicago, Ill.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Lake Erie Machinery Corp., Buffalo, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Service Machine Co., Inc., Elizabeth, N. J.
Stueck, Inc., W. Whitney, Old Saybrook, Conn.
Verson Allsteel Press Co., Chicago, Ill.

# MACHINES, SHEET METAL WORKING, BRAKES, PRESS

Bath Co., Cyril, Solon, O.
Dreis & Krump Míg. Co., Chicago, Ill.
Doelger & Kirsten, Inc., Milwaukee, Wis.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Fallsington Míg. Co., Fallsington, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Míg. Co., Lake City, Minn.
Service Machine Co., Inc., Elizabeth, N. J.
Stueck, Inc., W. Whitney, Old Saybrook, Conn.
Verson Allsteel Press Co., Chicago, Ill.
Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, BURRING, HAND

Frederick Iron & Steel, Inc., Frederick, Md.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, BURRING, POWER

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Swaine Mfg. Co., Fred J., St. Louis, Mo. Thor Power Tool Co., Aurora, Ill.

#### MACHINES, SHEET METAL WORKING, CLEAT BENDING

Duc-Pac Inc., East Longmeadow, Mass. Engel Sheet Metal Equipment, Inc., St. Louis, Mo. Lockformer Co., Chicago, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Smith, R. E., Waukegan, Ill.

#### MACHINES, SHEET METAL WORKING, CLIP FORMING

Harper Metal Products, San Bruno, Calif. Peck, Stow & Wilcox Co., Southington, Conn. Whitney Mfg. Co., W. A., Rockford, Ill.

### MACHINES, SHEET METAL WORKING, COMBINATION, HAND

Beading, Burring, Turning, Wiring, etc.

Lockformer Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Packham Crimper Co., Mechanics-Burgh, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.

### MACHINES, SHEET METAL WORKING, COMBINATION, POWER

Beading, Burring, Turning, Wiring, etc.

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Roto-Table Div. of the Fogarty Mfg. Co., Dayton, O. Swaine Mfg. Co., Fred J., St. Louis, Mo. Wysong & Miles Co., Greensboro, N. C.

### MACHINES, SHEET METAL WORKING, CRIMPING, HAND

Berkroy Products Co., Los Angeles, Calif.
Fallsington Mfg. Co., Fallsington, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Packham Crimper Co., Mechanics-Burgh, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, CRIMPING, POWER

Fallsington Mfg. Co., Fallsington, Pa.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Metal Lace and Stitch, Inc., New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Stamco Inc., New Bremen, O.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, DOUBLE SEAMING, ROOF, POWER

Flagler Corp., The, Detroit, Mich. Lockformer Co., Chicago, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Swaine Mfg. Co., Fred J., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, DUCT FORMING

See Machines, Sheet Metal Working, Grooving

# MACHINES, SHEET METAL WORKING, ELBOW OR COLLAR ATTACHING, HAND

Frederick Iron & Steel, Inc., Frederick, Md. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn.

# MACHINES, SHEET METAL WORKING, ELBOW OR COLLAR ATTACHING, POWER

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Welty-Way Products, Inc., Cedar Rapids, Ia.

# MACHINES, SHEET METAL WORKING, FASTENING, MANUAL

Airo Industries, Los Angeles, Calif. Bar-Brook Mfg. Co., Inc., Shreveport, La.

#### MACHINES, SHEET METAL WORKING, FILING

DoAll Co., Des Plaines, Ill. Grob Inc., Grafton, Wis.

# MACHINES, SHEET METAL WORKING, FLANGING, HAND

Engel Sheet Metal Equipment, Inc., St. Louis, Mo. Flagler Corp., The, Detroit, Mich. Lockformer Co., Chicago, Ill.

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Smith, R. E., Waukegan, Ill. Ward Machinery Co., Chicago, Ill.

# MACHINES, SHEET METAL WORKING, FLANGING, POWER

Bath Co., Cyril, Solon, O.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fallsington Mfg. Co., Fallsington, Pa.
Flagler Corp., The, Detroit, Mich.
Kling Bros. Engineering Works, Chicago, Ill.
Lockformer Co., Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Ward Machinery Co., Chicago, Ill.

# MACHINES, SHEET METAL WORKING, GROOVING,

Enderle, Inc., Ltd., Frank X., Los Angeles, Calif. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, GROOVING, POWER

Flagler Corp., The, Detroit, Mich.
Hardco Products, Wantagh, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Standard Power Groove Machine Corp., New York, N. Y.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, GUTTER FORMING, HAND OR POWER

Bowles Co., A. M., Houston, Tex. (Hand)
Kane & Roach, Inc., Syracuse, N. Y. (Power)
Malden Research and Development Co., Inc., Malden, Boston,
Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Robertson Machine and Foundry, Buffalo, N. Y.
Stamco, Inc., New Bremen, Ohio.
Stearns Lumber Co., A. T., Boston, Mass.
Welty-Way Products, Inc., Cedar Rapids, Ia. (Power)

# MACHINES, SHEET METAL WORKING, LOCK FORMING, POWER

Fallsington Mfg. Co., Fallsington, Pa.
Flagler Corp., The, Detroit, Mich.
Kane & Roach, Inc., Syracuse, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo. N. Y.

# MACHINES, SHEET METAL WORKING, NIBBLING, HAND

Black & Decker Mfg. Co., Towson, Md.
Penway Machine Co., Inc., Philadelphia, Pa.
Heinrich Tools, Inc., Racine, Wis.
Jemco Tool Corp., Seneca Falls, N. Y.
Modern Mfg. Co., Inc., Willow Grove, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Nord Corp., Nutley, N. J.

# MACHINES, SHEET METAL WORKING, NIBBLING, POWER

American Pullmax Co., Inc., Chicago, Ill. Berkroy Products Co., Los Angeles, Calif. Cosa Corp., New York, N. Y. Lennox Tool & Machine Builders, Lima, O. Libert Machine Co., Green Bay, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Nord Corp., Nutley, N. J.
St. Louis Tool Co., St. Louis, Mo.
Savage Co., W. J., Knoxville, Tenn.
Service Machine Co., Inc., Elizabeth, N. J.
Stanley Electric Tools Div., The Stanley Works, New Britain,
Conn.
Thor Power Tool Co., Aurora, Ill.
Wales-Strippit Co., Akron, N. Y.
Wilson Mechanical Instrument Div., American Chain & Cable Co.,
New York, N. Y.

# MACHINES, SHEET METAL WORKING, NOTCHER, SHEAR AND PUNCH, POWER

Buffalo Forge Co., Buffalo, N. Y. Ryerson & Son, Inc., Joseph T., Chicago, Ill.

# MACHINES, SHEET METAL WORKING, NOTCHING, MANUAL

Diesel Power, Inc., Greenville, Pa.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fallsington Mfg. Co., Fallsington, Pa. (Also power)
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.
Nord Corp., Nutley, N. J.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Punch Products Corp., Niagara Falls, N. Y.
Reiner & Campbell Co., Inc., Newark, N. J.
Thor Tool & Die Co., San Leandro, Calif.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wilder Mfg. Co., Salinas, Calif.

### MACHINES, SHEET METAL WORKING, NOTCHING, POWER

Consolidated Marketing Corp., Philadelphia, Pa. Engel Sheet Metal Equipment, Inc., St. Louis, Mo. Harper Metal Products, San Bruno, Calif.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Ruoff & Sons, Inc., Bellmawr, N. J.
Wales-Strippit Co., Akron, N. Y.
Whitney Mfg. Co., W. A., Rockford, Ill.

#### MACHINES, SHEET METAL WORKING, PAN FORMING

Dreis & Krump Mfg. Co., Chicago, III. Lake Erie Machinery Corp., Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Smith, R. E., Waukegan, III.

### MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK FORMING

Flagler Corp., The, Detroit, Mich.
Lockformer Co., Chicago, III.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.

# MACHINES, SHEET METAL WORKING, PITTSBURGH LOCK OPENING

Birks Mfg. Co., Meriden, Conn.
Bristol Metal Working Equipment Co., East Hartford, Conn.
Fallsington Mfg. Co., Fallsington, Pa.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Overland Sheet Metal Co., Overland, Mo.

#### MACHINES, SHEET METAL WORKING, PRESSES

Allen Industries, Alva, Clinton, Mo. Bath Co., Cyril, Solon, O. Benchmaster Mfg. Co., Gardena, Calif. Bertsch & Co., Cambridge City, Ind. Cincinnati Shaper Co., Cincinnati, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Davis & Son Machine Works, Los Angeles, Calif.
Diamond Machine Tool Corp., Pico-Rivera, Calif.
Doeiger & Kirsten, Inc., Milwaukee, Wis.
Dreis & Krump Mfg. Co., Chicago, Ill.
Fallsington Mfg. Co., Fallsington, Pa.
Famco Machine Co., Kenosha, Wis.
Hardco Products, Wantagh, N. Y.
Heidrich-Nourse Co., Los Angeles, Calif.
Henry & Wright Div. Emhart Mfg. Co., Hartford, Conn.
Highland Engineering Co., Santa Monica, Calif.
Johnson Machine & Press Corp., Div. of Bontrager Corp.,
Elkhart, Ind.
Kenco Mfg. Co., Los Angeles, Calif.
Leslie Welding Co., Inc., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Service Machine Co., Inc., Elizabeth, N. J.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Verson Allsteel Press Co., Chicago, Ill.
Wales-Strippit Co., Akron, N. Y.
Ward Machinery Co., Chicago, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Mfg. Co., W. A., Rockford, Ill.
Wilson, Inc., K. R., Arcade, N. Y.
Zeh & Hahnemann Co., Newark, N. J.

# MACHINES, SHEET METAL WORKING, PUNCHES, POWER

Allen Industries, Alva, Clinton, Mo.
Bath Co., Cyril, Solon, O.
Chicago Pneumatic Tool Co., New York, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Consolidated Marketing Corp., Philadelphia, Pa.
Davis & Son Machine Works, Los Angeles. Calif.
Diamond Machine Tool Corp., Pico-Rivera, Calif.
Doelger & Kirsten, Inc., Milwaukee, Wis.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Fallsington Mfg. Co., Fallsington, Pa.
Famco Machine Co., Kenosha, Wis.
Henry & Wright Div. Emhart Mfg. Co., Hartford, Conn.
Highland Engineering Co., Santa Monica, Calif.
Johnson Machine & Press Corp., Div. of Bontrager Corp.,
Elkhart, Ind.
Kenco Mfg. Co., Los Angeles, Calif.
Kling Bros. Engineering Works, Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Progressive Welder Sales Co., Pontiac, Mich.
Royersford Foundry & Machine Co., Royersford, Pa.
Swaine Mfg. Co., Fred J., St. Louis, Mo.
Verson Allsteel Press Co., Chicago, Ill.
Wales-Strippit Co., Akron, N. Y.
Wedgelock Corp., North Hollywood, Calif. (Portable pneumatic)
Weiss & Co., H., New York, N. Y.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.
Wiedemann Machine Co., King of Prussia, Pa.
Zeh & Hahnemann Co., Newark, N. J.

#### MACHINES, SHEET METAL WORKING, ROD CUTTING

Beverly Shear Mfg. Co., Chicago, Ill.
Diesel Power, Inc., Greenville, Pa.
Hendley & Whittemore Co., Beloit, Wis.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Ould (USA) Ltd., John, Mt. Vernon, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

#### MACHINES, SHEET METAL WORKING, SAWS, BAND, SHEET METAL CUTTING

Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa. DoAll Co., Des Plaines, Ill. Grob Inc., Grafton, Wis.

Lockformer Co., Chicago, Ill. Stueck, Inc., W. Whitney, Old Saybrook, Conn. Tannewitz Works, Grand Rapids, Mich. Wells Mfg. Corp., Three Rivers, Mich.

# MACHINES, SHEET METAL WORKING, SAWS, CIRCULAR, SHEET METAL CUTTING

Collins Machinery Corp., Los Angeles, Calif. Kett Tool Co., Cincinnati, O. Skil Corp., Chicago, Ill. Tannewitz Works, Grand Rapids, Mich.

# MACHINES, SHEET METAL WORKING, SAWS, HACK, POWER

Champion Blower & Forge Co., Lancaster, Pa. Miller-Knuth Mfg. Co., Auburn, Nebr. Racine Hydraulics & Machinery, Inc., Racine, Wis. Robertson Machine and Foundry, Buffalo, N. Y. Royersford Foundry & Machine Co., Royersford, Pa. Skil Corporation, Chicago, Ill. Thor Power Tool Co., Aurora, Ill.

# MACHINES, SHEET METAL WORKING, SEAMING, HAND

Enderle, Inc., Ltd., Frank X., Los Angeles, Calif. Lovinggood Tool Co., Charleston Heights, S. C. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Smith, R. E., Waukegan, Ill. Whitney Metal Tool Co., Rockford, Ill.

# MACHINES, SHEET METAL WORKING, SEAMING, POWER

Bliss Co., E. W., Detroit, Mich.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fallsington Mfg. Co., Fallsington, Pa.
Flagler Corp., The, Detroit, Mich.
Hardco Products, Wantagh, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Progressive Welder Sales Co., Pontiac, Mich.
Stamco, Inc., New Bremen, Ohio.
Swaine Mfg. Co., Fred J., St. Louis, Mo.

# MACHINES, SHEET METAL WORKING, SETTING DOWN, HAND

Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn.

# MACHINES, SHEET METAL WORKING, SETTING DOWN, POWER

Fallsington Mfg. Co., Fallsington, Pa. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn.

# MACHINES, SHEET METAL WORKING, SHAPE FORMING, POWER

For Mouldings and Shapes

Dahlstrom Machine Works, Chicago, Ill.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Flagler Corp., The, Detroit, Mich.
Hendley & Whittemore Co., Beloit, Wis.
Kane & Roach, Inc., Syracuse, N. Y.
Lake Erie Machinery Corp., Buffalo, N. Y.
Lockformer Co., Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

Wysong & Miles Co., Greensboro, N. C. Yoder Co., Cleveland, Ohio.

#### MACHINES, SHEET METAL WORKING, SHEARS, ANGLE IRON

Bateman Foundry & Machine Co., Mineral Wells, Tex. Hendley & Whittemore Co., Beloit, Wis. Kidder Mfg. Co., Inc., J. F., Burlington, Vt. Whitney Mfg. Co., W. A., Rockford, Ill. Whitney Metal Tool Co., Rockford, Ill.

### MACHINES, SHEET METAL WORKING, SHEARS, CIRCLE, HAND

Berkroy Products Co., Los Angeles, Calif. Klenk, Inc., Karl, Wilmington, Del. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn.

### MACHINES, SHEET METAL WORKING, SHEARS, CIRCLE, POWER

American Pullmax Co., Inc., Chicago, Ill. H. A. Mfg. Co., York, Pa. Kling Bros. Engineering Works, Chicago, Ill. Lennox Tool & Machine Builders, Lima, O. Libert Machine Co., Green Bay, Wis. Niagara Machine & Tool Works, Buffalo, N. Y. Nord Corp., Nutley, N. J. Peck, Stow & Wilcox Co., Southington, Conn.

Beverly Shear Mfg. Co., The, Chicago, Ill.

#### MACHINES, SHEET METAL WORKING, SHEARS, ELECTRIC, PORTABLE

Black & Decker Mfg. Co., Towson, Md.

Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Fenway Machine Co., Inc., Philadelphia, Pa.
Jemco Tool Corp., Seneca Falls, N. Y.
Krieg, Inc., Victor J., New York, N. Y.
Lind Co., C. W., Minneapolis, Minn. Malden Research and Development Co., Inc., Malden, Boston, Merchandising & Manufacturing Associates, Inc., Lancaster, Pa. (Electric or pneumatic drill attachment)

Millers Falls Co., Greenfield, Mass.

Milwaukee Electric Tool Corp., Milwaukee, Wis.

Modern Mfg. Co. Inc., Willow Grove, Pa.

O'Neil-Irwin Mfg. Co., Lake City, Minn. Skil Corporation, Chicago, Ill. Stanley Electric Tool Div., Stanley Works, New Britain, Conn. Thor Power Tool Co., Aurora, Ill. Wilder Mfg. Co., Inc., Salinas, Calif.

### MACHINES, SHEET METAL WORKING, SHEARS, ROTARY, SLITTING, HAND

Berkroy Products Co., Los Angeles, Calif. Engle Sheet Metal Equipment, Inc., St. Louis, Mo. Fidelity Tool Supply, Inc., Camden, N. J. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Ward Machinery Co., Chicago, Ill. Whitney Mfg. Co., W. A., Rockford, Ill.

#### MACHINES, SHEET METAL WORKING, SHEARS, ROTARY, SLITTING, POWER

American Pullmax Co., Inc., Chicago, Ill.
Flagler Corp., The, Detroit, Mich.
Kling Bros. Engineering Works, Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Stanat Mfg. Co., Inc., Westbury, L.I., N. Y.
Stanley Electric Tool Div., Stanley Works, New Britain, Conn.
Wilder Mfg. Co., Inc., Salinas, Calif.

# MACHINES, SHEET METAL WORKING, SHEARS, SQUARING, MANUAL

Acme Equipment Co., Inc., Chicago, Ill.
Diamond Machine Tool Corp., Pico-Rivera, Calif.
Frederick Iron & Steel, Inc., Frederick, Md.
Highland Engineering Co., Santa Monica, Calif.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.
Wilder Mfg. Co., Inc., Salinas, Calif.
Wysong & Miles Co., Greensboro, N. C.

### MACHINES, SHEET METAL WORKING, SHEARS, SQUARING, POWER

Acme Equipment Co., Inc., Chicago, Ill. Bertsch & Co., Cambridge City, Ind. Cincinnati Shaper Co., Cincinnati, Ohio. Cleveland Crane & Engineering Co., Wickliffe, Ohio. Diamond Machine Tool Corp., Pico-Rivera, Calif.
Engel Sheet Metal Equipment, Inc., St. Louis, Mo.
Famco Machine Co., Kenosha, Wis.
H. A. Mfg. Co., York, Pa.
Johnson Machine & Press Corp., Div. of Bontrager Corp., Johnson Machine & Press Corp., Div. of Be Elkhart, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y. O'Neil-Irwin Mfg. Co., Lake City, Minn. Peck, Stow & Wilcox Co., Southington, Conn. Stamco, Inc., New Bremen, Ohio.
Verson Allsteel Press Co., Chicago, Ill. Whitney Metal Tool Co., Rockford, Ill. Wilder Mfg. Co., Inc., Salinas, Calif. Wysong & Miles Co., Greensboro, N. C.

### MACHINES, SHEET METAL WORKING, SLIP ROLL FORMING, HAND

Berkroy Products Co., Los Angeles, Calif. Frederick Iron & Steel, Inc., Frederick, Md. Hendley & Whittemore Co., Beloit, Wis. Niagara Machine & Tool Works, Buffalo, N. Y. O'Neil-Irwin Mfg. Co., Lake City, Minn. Peck, Stow & Wilcox Co., Southington, Conn. San Angelo Foundry & Machine Co., San Angelo, Tex. Wysong & Miles Co., Greensboro, N. C.

# MACHINES, SHEET METAL WORKING, SLIP ROLL FORMING, POWER

Bertsch & Co., Cambridge City, Ind.
Fallsington Mfg. Co., Fallsington, Pa.
Hendley & Whittemore Co., Beloit, Wis.
Kling Bros. Engineering Works, Chicago, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y. Niagara Machine & Tool Works, Buraio, N. 1.
O'Neil-Trwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Reed Equipment Div., The Webb Corp., Webb City, Mo.
San Angelo Foundry & Machine Co., San Angelo, Tex.
Wysong & Miles Co., Greensboro, N. C.

#### MACHINES, SHEET METAL WORKING, SLITTING, HAND

Berkroy Products Co., Los Angeles, Calif.
Beverly Shear Mfg. Co., Chicago, Ill.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Whitney Mfg. Co., W. A., Rockford, Ill. Whitney Metal Tool Co., Rockford, Ill.

### MACHINES, SHEET METAL WORKING, SLITTING, POWER

Beverly Shear Mfg. Co., The, Chicago, Ill.

Dahlstrom Machine Works, Chicago, Ill.

Engel Sheet Metal Equipment, Inc., St. Louis, Mo.

Flagler Corp., The, Detroit, Mich.
Hendley & Whittemore Co., Beloit, Wis.
Kane & Roach, Inc., Syracuse, N. Y.
Libert Machine Co., Green Bay, Wis.
Lockformer Co., Chicago, Ill.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
St. Louis Tool Co., St. Louis, Mo.
Stamco, Inc., New Bremen, Ohio.
Stanat Mfg. Co., Inc., Westbury, L.I., N. Y.
Wilder Mfg. Co., Inc., Salinas, Calif.
Yoder Co., Cleveland, Ohio.

# MACHINES, SHEET METAL WORKING, STITCHING, POWER

Acme Steel Co., Chicago, Ill. Bostitch, East Greenwich, R. I.

# MACHINES, SHEET METAL WORKING, WIRING,

Frederick Iron & Steel, Inc., Frederick, Md.
Maplewood Div., Rockford Machine Tool Co., Rockford, Ill.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.

# MACHINES, SHEET METAL WORKING, WIRING

Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Swaine Mfg. Co., Fred J., St. Louis, Mo.

#### MAGNETIC SHEET SUPPORT

See Support, Sheet, Magnetic

### MAKEUP AIR HEATER

See Units, Makeup Air, Horizontal Package Type

#### MALLETS, METAL WORKING

Acme Tool Co., New York, N. Y. (Plastic) Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.

(Lead)
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Chicago Rawhide Mfg. Co., Chicago, Ill. (Rawhide and nylon)
Division Lead Co., Summit, Ill. (Lead)
Greene, Tweed & Co., New York, N. Y. (Plastic, rawhide, composition, copper & babbit)
Hi-Lok Mfg. Co., Akron, O. (Aluminum, steel, brass, copper, plastic, nylon)
Kloppenborg Foundry & Fan Co., Davenport, Ia. (Copper, aluminum)
Lignum-Vitae Products Corp., Jersey City, N. J.
New Plastic Corp., Hollywood, Calif. (Plastic)
Niagara Machine & Tool Works, Buffalo, N. Y. (Hickory)
Proto Tools, Los Angeles, Calif. (Plastic, brass, rubber)
Republic Rubber Div. Lee Rubber & Tire Corp., Youngstown, Ohio. (Rubber)
Stossel & Sons Co., Carl, Front Royal, Va. (Hickory & dogwood)
Tahlen Hammer Co., Seattle, Wash. (Nylon, plastic and metal faced)

# MANIFOLD ASSEMBLY FOR GAS-FIRED HEATING EQUIPMENT

Universal Pattern Layout & Template Development Co., St. Louis,

See Controls, Gas, Combination

### MARQUEES, PREFABRICATED

See Canoples, Prefabricated

#### MASONRY ANCHORS

See Anchors, Expansion

# MATERIALS, PATCHING, TANK

Hasko Utilities Co., New York, N. Y. Tankit Co., Inc., Newark, N. J.

# MATERIALS, PROTECTIVE FOR POLISHED METAL

Adhesive Tape Corp., Brooklyn, N. Y. (Protective paper) Guard Coatings Corp., Long Island City, N. Y. Onco Products, Inc., Middletown, O. (Water base, adhesive on paper-foil sheet)

### MATS, EVAPORATIVE COOLER

Alton Mfg. Co., Dallas, Texas. (Aspenwood and Rubberized)
Arizona Maintenance Co., Tucson, Ariz.
International Metal Products Co., Phoenix, Ariz. (Chemically
treated aspen fiber)
Magic Aire Div., United Electric Co., Wichita Falls, Tex.
(Aspenwood)
Morey, Dan, Los Angeles, Calif. (Aspen)
Palmer Industries, Inc., Phoenix, Ariz. (Aspen)
Research Products Corp., Madison, Wis. (Fiber)
United Electric Co., Wichita Falls, Tex. (Aspenwood)
Western Wood Excelsior Mfg. Co., Phoenix, Ariz.
Winter Mfg. Co., Winter, Tex.

#### METAL CEILINGS

See Cellings, Metal

#### METAL HOSE

See Hose and Fittings, Metal

### METAL LACING AND STITCHING MACHINES

See Machines, Sheet Metal Working, Crimping

# METAL PROTECTIVE MATERIALS FOR POLISHED

See Materials, Protective, for Polished Metal Surfaces

# METAL SPRAY GUNS

See Guns, Spray, Metal

# METAL STAMPINGS

See Stampings, Metal

# METALS, PERFORATED, SHEET AND PLATE

Auer Register Co., Cleveland, O.
Beckley Perforating Co., Garwood, N. J.
Belmont Smelting & Refining Wks., Inc., Brooklyn, N. Y.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chicago Perforating Co., Chicago, Ill.
Colonial Alloys Co., Philadelphia, Pa.
Cross Perforated Metals, National-Standard Co., Carbondale, Pa.
Designers Metal Corp., Hammond, Ind.
Diamond Mfg. Co., Wyoming, Pa.
Division Lead Co., Summit, Ill.
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., Inc., Chicago, Ill.
Harrison Sheet Steel Co., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Littleford Bros., Inc., Cincinnati, Ohio.

Mo.

Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
McKey Perforating Co., Inc., Milwaukee, Wis.
Mundt & Sons, Charles, Jersey City, N. J.
Penn Metal Co., Inc., Boston, Mass.
Reynolds Metals Co., Richmond, Va.

MOTORS, ELECTRIC, DUCT DAMPER, MODULATING
OR PROPORTIONING

See Controls, Duct Damper, Modulating or Proportioning Standard Stamping & Perforating Co., Chicago, Ill. Superior Metal Fabricating Co., Niles, Ohio.

# METERS, AIR VELOCITY, DIRECT READING

Airserco Mfg. Co., Pittsburgh, Pa.
Anemostat Corp. of America, New York, N. Y.
Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Dwyer Mfg. Co., F. W., Michigan City, Ind.
Hastings-Raydist, Inc., Hampton, Va.
Hill & Co., E. Vernon, Lake Geneva, Wis. Illinois Testing Laboratories, Inc., Chicago, Ill. Taylor Instrument Companies, Rochester, N. Y.

# METERS. SOUND LEVEL

Airserco Mfg. Co., Pittsburgh, Pa. Mine Safety Appliances Co., Pittsburgh, Pa. Scott, Inc., Hermon Hosmer, Maynard, Mass.

#### MOLDINGS AND TRIM, ORNAMENTAL, CABINET AND CASING

Aluminum Co. of America, Pittsburgh, Pa. American Insulator Corp., New Freedom, Pa. American Insulator Corp., New Freedom, Pa.
Bonnell Co., Inc., William L., Newman, Ga.
Brasco Mfg. Co., Harvey, Ill.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Detroit Moulding Div., L. A. Young Spring & Wire Corp., Detroit, Mich. Jamestown Metal Corp., Jamestown, N. Y. Kawneer Co., Niles, Mich. Nawneer Co., Niles, Mich. Lynch & Sons, Kenneth, Wilton, Conn. Metalines, Inc., Rockford, Ill. Miller & Doing, Brooklyn, N. Y. (Architectural) Mirro Aluminum Co., Manitowoc, Wis. (Aluminum) Pyramid Mouldings, Inc., Chicago, Ill. Revere Copper & Brass Inc., New York, N. Y. Tennessee Fabricating Co., Memphis, Tenn. Werner Co., Inc., R. D., New York, N. Y.

#### MOLDINGS AND TRIM FOR SIDING, SHINGLES AND STORE FRONTS

Allmetal Weatherstrip Co., Evanston, Ill. (Zinc)
Aluminum Co. of America, Pittsburgh, Pa.
Appleton Supply Co., Inc., Appleton, Wis. (Aluminum, zinc)
Bonnell Co., Inc., William L., Newman, Ga.
Edwards Mfg. Co., Inc., Cincinnati, Ohio.
Inland Steel Products Co., Milwaukee, Wis. (Corners)
Klauer Mfg. Co., Dubuque, Iowa.
Matthiessen & Hegeler Zinc Co., LaSalle, Ill.
Peop Supply & Metal Corn. Philadelphia, Pa. Penn Supply & Metal Corp., Philadelphia, Pa.
Quaker State Metals Co., Lancaster, Pa.
Reynolds Metals Co., Richmond, Va. (Aluminum)
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. (Bull nose corner bead) Sioux Steel Co., Sioux Falls, S. Dak. Werner Co., R. D., Inc., New York, N. Y.

#### MONORAIL SYSTEMS

#### Track, Trolley, Hoist, Accessories

American MonoRail Co., Cleveland, Ohio. Chicago Tramrail Co., Chicago, Ill. Cleveland Crane & Engineering Co., Wickliffe, Ohio. Richards-Wilcox Mfg. Co., Aurora, Ill.

Shepard Niles Crane & Hoist Corp., Montour Falls, N.Y.

Webb Co., Jervis B., Detroit, Mich.

#### **MOTOR TRUCKS**

See Trucks, Motor

### MOTORS, ELECTRIC, DUCT, DAMPER, TWO POSITION

See Controls, Duct Damper, Two Position

# MOTORS, ELECTRIC, FRACTIONAL H.P.

ACEC Electric Corp., New York, N. Y. Alliance Mfg. Co., Alliance, O. Baldor Electric Co., St. Louis, Mo. Barber-Colman Co., Rockford, Ill. Barber-Colman Co., Rockford, Ill.
Bodine Electric Co., Chicago, Ill.
Brown-Brockmeyer Co., Inc., Dayton, Ohio.
Century Electric Co., St. Louis, Mo.
Delco Products Div. General Motors Corp., Dayton, Ohio.
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
Diehl Mfg. Co., Somerville, N. J.
Doerr Electric Co., Cedarburg, Wis.
Electric Motor Corp., Div. Howard Industries, Inc., Racine,
Wis Wis W.15.
Electric Motors & Specialties, Inc., Garrett, Ind.
Emerson Electric Mfg. Co., St. Louis, Mo.
Fasco Industries, Inc., Rochester, N. Y.
Franklin Electric Co., Inc., Bluffton, Ind. General Electric Co., Apparatus Sales Div., Schenectady, N. Y. Holtzer-Cabot Motor Div., National Pneumatic Co., Inc., Boston, Mass Mass.
Howard Industries, Inc., Racine, Wis.
International Register Co., Chicago, Ill.
Jack & Heintz, Inc., Cleveland, Ohio.
Kingston-Conley, Inc., Div. of Howell Electric Motors Co., Plainfield, N. J. Leland Ohio Electric Co., Subsidiary of Howell Electric Motors Leland Ohio Electric Co., Subsidiary of Howell Electric Motors
Co., Dayton, Ohio.
Lima Electric Motor Co., Inc., Lima, O.
Marathon Electric Mfg. Corp., Wausau, Wis.
Marble Electric Corp., Gladstone, Mich.
Marco Electric Mfg. Corp., Womelsdorf, Pa.
Mamco Corp., Racine, Wis.
Master Electric Co., Div. of Reliance Electric and Engineering Co., Dayton, Ohio. Morey, Dan, Los Angeles, Calif.
Morrill Motors, Inc., Ft. Wayne, Ind.
National Pneumatic Co., Inc., New York, N. Y.
Newman Electric Motors Inc., Newark, N. J. Ohio Electric Mig. Co., Subsidiary of Howell Electric Motors Co., Cleveland, Ohio.
Packard Electric Div., General Motors, Corp., Warren, Ohio. Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso, Mich. Reliance Electric & Engineering Co., Cleveland, O.

#### MOTORS, ELECTRIC, 1 H.P. AND OVER

Reploids Electric Co., Aver Glove, Inc.
Robbins & Myers, Inc., Springfield, Ohio.
Small Motors, Inc., Chicago, Ill.
Smkth Corp., A. O., Motor Div., Tipp City, O.
Speedway Mfg. Co., Div. of Thor Power Tool Co., LaGrange
Park, Ill.

Reuland Elec. Co., Alhambra, Calif. Reynolds Electric Co., River Grove, Ill.

Park, III.
Torq Electric Corp., Bedford, Ohio.
U.S. Electrical Motors, Inc., Los Angeles, Calif.
Universal Electric Co., Owosso, Mich.
Wagner Electric Corp., St. Louis, Mo.
Westinghouse Electric Corp., Pittsburgh, Pa.
Worthington Corp., Harrison, N. J.

ACEC Electric Corp., New York, N. Y.
Allis Chalmers Mfg. Co., Milwaukee, Wis.
Allis Co., Louis, Milwaukee, Wis.
Armor Electric Mfg. Co., Erie, Pa.
Baldor Electric Co., St. Louis, Mo.
Brook Motor Corp., Chicago, Ill.
Brown-Brockmeyer Co., Inc., Dayton, Ohio.
Century Electric Co., St. Louis, Mo.
Delco Products Div., General Motors Corp., Dayton, Ohio.
Delta Power Tool Div., Rockwell Mfg. Co., Pittsburgh, Pa.
Diehl Mfg. Co., Somerville, N. J.
Doerr Electric Co., Cedarburg, Wis.
Electric Machinery Mfg. Co., Minneapolis, Minn.

Electro Dynamic Div., General Dynamics Corp., Bayonne, N. J. Elliott Co., Crocker-Wheeler Plant, Div. of Carrier Corp., Jeannette, Pa. Emerson Electric Mfg. Co., St. Louis, Mo. Fairbanks, Morse & Co., Chicago, Ill.
Franklin Electric Co., Inc., Blufton, Ind.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y. Ideal Electric & Mfg. Co., Mansheld, Ohio.
Imperial Electric Co., Akron, Ohio.
Kingston-Conley, Inc., Div. of Howell Electric Motors Co., Plainfield, N. J.
Leland Ohio Electric Co., Subsidiary of Howell Electric Motors Co., Dayton, Ohio.
Lima Electric Motor Co., Inc., Lima, O.
Lincoln Electric Co., Cleveland, O.
Marathon Electric Mfg. Corp., Wausau, Wis.
Marble Electric Corp., Gladstone, Mich.
Master Electric Div. of Reliance Electric and Engineering Co., Dayton, Ohio.
Newman Electric Motors Inc., Newark, N. J.
Peerless Electric Div., The H. K. Porter Co., Warren, Ohio.

Dayton, Onio.

Newman Electric Motors Inc., Newark, N. J.

Peerless Electric Div., The H. K. Porter Co., Warren, Ohio.

Philadelphia Gear Corp., Philadelphia, Pa.

Reliance Electric & Engineering Co., Cleveland, O.

Reuland Electric Co., Alhambra, Calif.

Robbins & Meyers, Inc., Springfield, Ohio.

Safety Electrical Equipment Corp., New Haven, Conn.

Smith Corp., A. O., Motor Div., Tipp City, O.

Sterling Electric Motors, Inc., Los Angeles, Calif.

U. S. Electrical Motors, Inc., Los Angeles, Calif.

Valley Electric Corp., St. Louis, Mo.

Wagner Electric Corp., St. Louis, Mo.

Westinghouse Electric Corp., Pittsburgh, Pa.

Worthington Corp., Harrison, N. J.

### MOUNTINGS, VIBRATION

See Bases, Vibration

#### NAILS, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa. Chase Brass & Copper Co., Inc., Waterbury, Conn. Dickson Weatherproof Nail Co., Evanston, Ill. Hassall, Inc., John, Westbury, L. I., N. Y. Independent Nail & Packing Co., Bridgewater, Mass. Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. Nichols Wire & Aluminum Co., Davenport, Iowa Quaker State Metals Co., Lancaster, Pa. Reynolds Metals Co., Richmond, Va.

### NAILS, BRASS OR COPPER

American Steel & Wire Div., U. S. Steel Corp., Cleveland Ohio.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Copperweld Steel Co., Wire and Cable Div., Glassport, Pa.
Hassall, Inc., John, Westbury, L. I., N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Independent Nail & Packing Co., Bridgewater, Mass.

# NAILS, HARDENED MASONRY

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.

Dickson Weatherproof Nail Co., Evanston, Ill.
Hillwood Mfg. Co., Cleveland, Ohio.
Independent Nail & Packing Co., Bridgewater, Mass.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
Tremont Nail Co., Wareham, Mass.

# NAILS, ROOFING

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
Berger Div., Republic Steel Corp., Canton, O. (Galvanized)
Bethlehem Steel Co., Bethlehem, Pa. (Steel)
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Deniston Co., Chicago, Ill. (Steel & aluminum)
Dickson Weatherproof Nail Co., Evanston, Ill. (Lead headed)

Division Lead Co., Summit, Ill. (Lead)
Hassall, Inc., John, Westbury, L. I., N. Y. (Copper)
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
Independent Nail & Packing Co., Bridgewater, Mass.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel)
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. (Aluminum)
Maze Co., W. H., Peru, Ill. (Steel)
Quaker State Metals Co., Lancaster, Pa. (Aluminum)
Republic Steel Corp., Cleveland, Ohio. (Steel)
Reynolds Metals Co., Richmond, Va. (Aluminum)
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

### NAILS, SCREW, HARDENED

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.

Deniston Co., Chicago, Ill. (Pallet)
Dickson Weatherproof Nail Co., Evanston, Ill.
Hillwood Mfg. Co., Cleveland, Ohio. (Drive)
Independent Nail & Packing Co., Bridgewater, Mass.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Maze Co., W. H., Peru, Ill.
Parker-Kalon Div. of General American Transportation Corp.,
Clifton, N. J.

### NAILS, STAINLESS STEEL

Anti-Corrosive Metal Products Co., Inc., Castleton-on-Hudson, N. Y.

Allmetal Screw Products Co., Inc., Garden City, N. Y.
American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.

Dickson Weatherproof Nail Co., Evanston, Ill.

Hassall, Inc., John, Westbury, L. I., N. Y.
Independent Nail & Packing Co., Bridgewater, Mass.

Star Stainless Screw Co., Paterson, N. J.

### NAILS, ZINC COATED

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
Berger Div., Republic Steel Corp., Canton, O.
Bethlehem Steel Co., Bethlehem, Pa. (Steel)
Dickson Weatherproof Nail Co., Evanston, Ill.
Hassall, Inc., John, Westbury, L. I., N. Y.
Independent Nail & Packing Co., Bridgewater, Mass.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

# NAME PLATES

See Plates, Name

#### NIBBLERS

See Machines, Sheet Metal Working, Nibbling; Machines, Sheet
Metal Working, Shears, Electric

### NICKEL AND NICKEL ALLOY SHEETS

See Sheets, Metal, Special Metal

#### NIGHT COOLING FANS

See Fans, Propeller Type, Attic; Fans, Propeller Type, Window Exhaust

#### NOTCHERS

See Machines, Sheet Metal Working, Notching

# NOTCHERS, DRIVE CLEAT

See Punches, Bench

# NOZZLES, OIL BURNER

Benjamin Air Rifle Co., St. Louis, Mo.
Boston Machine Works Co., Lynn, Mass. (Also nozzle kit)
Delavan Míg. Co., West Des Moines, Iowa.
Hago Products, Mountainside, N. J.
Harvey, Inc., Sid, Valley Stream, N. Y.
Hasko Utilities Co., New York, N. Y.
Monarch Míg. Works, Inc., Philadelphia, Pa.
Steinen Míg. Co., Wim., Newark, N. J.

# NOZZLES, SPRAY, WATER

American Cooling Tower Co., Kansas City, Mo.
Austin Mfg. Corp., Austin, Tex.
Bahnson Co., Winston-Salem, N. C.
Benjamin Air Rifle Co., St. Louis, Mo.
Binks Mfg. Co., Chicago. Ill.
Boston Machine Works Co., Lynn, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Chain Belt Co., Milwaukee, Wis.
Clarage Fan Co., Kalamazoo, Mich.
Delavan Mfg. Co., West Des Moines, Iowa.
Eddington Metal Specialty Co., Eddington, Pa.
HERRmidifier Co., Lancaster, Pa.
Maid-O'-Mist, Inc., Chicago, Ill.
Monarch Mfg. Works, Inc., Philadelphia, Pa.
Plummer Spray Equipment Co., Napoleon, Ohio.
Rega Mfg. Co., Rochester, N. Y.
Ross Sprinkler Co., Rosemead, Calif.
Schutte and Koerting Co., Cornwells Heights, Bucks Co., Pa.
Spray Engineering Co., Burlington, Mass.
Spraying Systems Co., Bellwood, Ill.
Stearns Co., N. C., Shreveport, La.
Steinen Mfg. Co., Wm., Newark, N. J.
Supreme Electric Products Corp., Rochester, N. Y.
TOT Towers Co., Houston, Tex.
Tinnerman Products, Inc., Cleveland, O.
Water Cooling Equipment Corp., St. Louis, Mo.
Yarnall-Waring Co., Philadelphia, Pa.

### NUTS, PRONGED

Fox Products Co., Philadelphia, Pa. Tinnerman Corp., Geo. A., Cleveland, O.

#### ODOR ADSORBERS, AIR

See Adsorbers, Odor, for Duct Systems

#### ODOR ADSORBERS, FUEL OIL

See Deadorizers, Fuel Oil

#### OIL BURNER CONTROLS

See Controls; Control Systems

# OIL BURNER PARTS

See Burner Parts, Oll

#### OIL BURNER REPAIR TOOLS

See Tools, Oil Burner Repair

#### OIL BURNERS

See Burners, Oll, Residential

#### OIL DEODORIZERS

See Deodorizers, Fuel Oil

# OILS, FOR COATING VISCOUS AIR FILTERS

Air-Con Filter Corp., Memphis, Tenn. Air-Maze Corp., Cleveland, O. Evans Corp., George, Moline, Ill. Research Products Corp., Madison, Wis.

#### OIL STORAGE TANKS

See Tanks, Fuel Storage

#### ORNAMENTS, SHEET METAL

See Moldings and Trim, Ornamental

#### PACKAGED SYSTEMS

See Systems, Heating, Small Pipe

# PACKING, ASBESTOS ROPE

Greene, Tweed & Co., North Wales, Pa. Keasbey & Mattison Co., Ambler, Pa. Raybestos-Manhattan, Inc., Passaic, N. J. Wilson, Inc., Grant, Chicago, Ill.

### PADS, EVAPORATIVE COOLER

See Mats, Evaporative Cooler

### PAINT, ROOFING

American-Marietta Co., Chicago, Ill.
Arco Co., Cleveland, O.
Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
(Pitch base)
Blue Ridge Talc Co., Inc., Henry, Va.
Cabot, Inc., Samuel, Boston, Mass.
Calbar Paint & Varnish Co., Philadelphia, Pa.
Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio.
Carter Paint Co., Inc., Liberty, Ind.
Champion Bronze Powder & Paint Co., Chicago, Ill.
Cheesman-Elliot Co., Inc., Brooklyn, N. Y.
Continental Products Co., Euclid, Ohio.
Coopers Creek Chemical Corp., West Conshohocken, Pa.
Debevoise Co., Brooklyn, N. Y.
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Fibreboard Paper Products Corp., San Francisco, Calif.
Flintkote Co., New York, N. Y.
Horn Co., Inc., A. C., Long Island City, N. Y.
Illinois Bronze Powder Co., Inc., Chicago, Ill.
Inter-Coastal Paint Co., East St. Louis, Ill.
Iowa Paint Mfg. Co., Inc., Des Moines, Iowa. (Asphalt)
Lastik Paint Inc., Pittsburgh, Pa. (Asphalt & fiber)
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Midland Paint & Varnish Co., Cleveland, Ohio.
National Mfg. Corp., Tonawanda, N. Y.
Nebel Mfg. Co., Cleveland, Ohio.
Ohmlac Paint & Refining Co., Inc., Long, Broklyn, N.
Presstite Engineering Co., St. Louis, Mo.
Reilly Tar & Chemical Corp., Indianapolis, Ind.
Ruberoid Co., New York, N. Y.
Rutland Fire Clay Co., Rutland, Vt. (Asphalt)
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Sipe & Co., James B., Pittsburgh, Pa.
Sonneborn Sons, Inc., L., New York, N. Y.
Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.
Tamms Industries Co., Chicago, Ill.
Thompson & Co., Oakmont, Pa.
Toledo Paint and Chemical Co., Toledo, O.
Tropical Paint Co., Cleveland, Ohio.
United Gilsonite Laboratories, Scranton, Pa. (Asphalt, aluminum)
Whitlam Mfg. Co., J. C., Wadsworth, O.

### PAINT, SHEET METAL

Aluminum, Finish or Prime Coat, Heat Resistant, etc.

Allen Co., Inc., L. B., Schiller Park, Ill. (Heat resistant) American-Marietta Co., Chicago, Ill. (Aluminum, prime & finish

American Sand-Banum Co., Inc., Merrick, N. Y. (Aluminum) Arco Co., The, Cleveland, O. (Aluminum, finish coat) Babbitt Chemical Co. Inc., New Bedford, Mass. (Aluminum,

finish coat)

Barreled Sunlight Paint Co., Providence, R.I. (Aluminum, finish

Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

Blue Ridge Talc Co., Inc., Henry, Va.
Cabot, Inc., Samuel, Boston, Mass. (Aluminum, metal protecting)
Calbar Paint & Varnish Co., Philadelphia, Pa. (Aluminum, finish coat)

Carboline Co., St. Louis, Mo. (Aluminum, finish coat & prime coat)

Carey Co., Philip, Lockland, Cincinnati, Ohio. (Aluminum) Carter Paint Co., Inc., Liberty, Ind. (Finish coat) Champion Bronze Powder & Paint Co., Chicago, Ill. (Self-spray-

ing bombs, all colors)

Chase Products, Inc., Broadview, Ill.
Cheesman-Elliot Co., Inc., Brooklyn, N. Y.
Chemical Solvent Co., Birmingham, Ala.
Continental Products Co., Euclid, Ohio. (Aluminum, finish coat) Coopers Creek Chemical Corp., West Conshohocken, Pa. (Aluminum, finish coat)

Cordo Chemical Corp., Norwalk, Conn. (Acid and alkali resistant coatings)

Corrosite Corp., Brooklyn, N. Y. (Plastic)
Debevoise Co., Brooklyn, N. Y. (Prime coat & finish coat)
du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. (Aluminum, prime coat & finish coat)
Eastern States Paint & Varnish Co., Philadelphia, Pa. (Alumi-

num, prime and finish coat)

Fibreboard Paper Products Corp., San Francisco, Calif. (Alu-

minum, prime & finish coat)

Flintkote Co., New York, N. Y. (Aluminum)

Flood Co., Hudson, Ohio.

Galvicon Corp., New York, N. Y. (Prime coat, zinc)

Glidden Co., Cleveland, Ohio. (Aluminum finish coat, prime coat)

Hague & Co., Inc., Alfred, Div. of Lacquer & Chemical Corp., Brooklyn, N. Y. (Aluminum, finish coat)

Horn Co., Inc., A. C., Long Island City, N. Y. (Aluminum, finish coat)

Illinois Bronze Powder Co., Inc., Chicago, Ill. (Aluminum) Industrial Metal Protectives, Dayton, O. (Prime coat) Inter-Coastal Paint Co., East St. Louis, Ill. (Prime coat, finish

coat & sound deadening)
Iowa Paint Míg. Co., Inc., Des Moines, Ia.
Koppers Co., Inc., Pittsburgh, Pa. (Aluminum, finish coat)

Lastik Paint Inc., Pittsburgh, Pa. (Aluminum, prime coat & finish coat)

Metal & Thermit Corp., Rahway, N. J. (Aluminum, prime coat, finish coat)

Midland Paint & Varnish Co., Cleveland, Ohio. (Aluminum, finish coat)

Miracle Adhesives Corp., Bellmore, L.I., N. Y.
Morris Paint & Varnish Co., Omaha, Nebr.
National Lead Co., New York, N. Y. (Prime, aluminum, finish

National Mfg. Corp., Tonawanda, N. Y. (Aluminum)
Nebel Mfg. Co., Cleveland, Ohio. (Aluminum, finish coat)
Ohmlac Paint & Refining Co., Chicago, Ill. (Finish coat)
Parker Rust Proof Co., Detroit, Mich. (Bonderized coating)

Petroleum Chemicals, Inc., Fresno, Calif. Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Aluminum, finish coat)

Quigley Co., Inc., New York, N. Y. (Aluminum, finish coat) Rust-Oleum Corp., Evanston, Ill. (Aluminum, prime coat, finish

coat & rust preventive coatings)
Rutland Fire Clay Co., Rutland, Vt. (Finish coat, aluminum)
S. O. S. Products Co., Inc., Brooklyn, N. Y. (Aluminum) Sherwin-Williams Co., Cleveland, Ohio. (Aluminum) Sipe & Co., James B., Pittsburgh, Pa. (Aluminum, prime coat &

finish coat)

Slip-On, Inc., Long Beach, N. Y. (Stainless steel) Sonneborn Sons, Inc., L., New York, N. Y. (Aluminum, finish coat) Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc.,

Savannah, Ga. Speco, Inc., Cleveland, Ohio (Aluminum) Sprayon Products, Inc., Cleveland, O. (Spray) Tamms Industries Co., Chicago, Ill. (Finish coat)

Tennessee Fabricating Co., Memphis, Tenn. (Finish coat)

Thompson & Co., Oakmont, Pa. (Aluminum, finish coat)
Toledo Paint and Chemical Co., Toledo, O.
Tropical Paint Co., Cleveland, Ohio. (Aluminum, finish coat)
Truscon Laboratories, Detroit, Mich. (Aluminum, prime coat &

finish coat) United States Stoneware Co., New York, N. Y. (Aluminum, finish coat)

West Chester Chemical Co., West Chester, Pa.
Whitlam Mfg. Co., J. C., Wadsworth, O. (Aluminum, prime coat, finish coat)

Wilbur & Williams Co., Norwood, Mass. (Aluminum, prime coat, finish coat)

#### **PAINT SPRAY GUNS**

See Guns, Spray, Paint

#### PANEL BOARDS

See Boards, Panel and Control

# PANELS, CURTAIN WALL, METAL, PREFABRICATED

Consisting of Exterior Sheet, insulating Material and Back Sheet

Bowman Steel Corp., Pittsburgh, Pa. Celotex Corp., Chicago, Ill. Centex Corp., Chicago, III.
Cemenstone Corp., Neville Island, Pittsburgh, Pa.
Davidson Enamel Products, Inc., Lima, O. (Porcelain)
Englander Co., Inc., Plastics Div., Baltimore, Md. (Plastic)
Eric Enameling Co., Eric, Pa.
Ervite Corp., Eric, Pa. (Porcelain enamel)
Fenestra Inc., Detroit, Mich.
Cented Beners Corp. Cented Circ. L. I. N. V. Fenestra Inc., Detroit, Mich.
General Bronze Corp., Garden City, L.I., N. Y.
Globe Hoist Co., Philadelphia, Pa.
Haskelite Mfg. Corp., Grand Rapids, Mich. (Plastic)
Ingram-Richardson Mfg. Co., Beaver Falls, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Johns-Manville, New York, N. Y.
Kawneer Co., Niles, Mich.
Knapp Bros. Mfg. Co., Cincinnati, O.
Mahon Co., R. C., Detroit, Mich.
Metalines, Inc., Rockford, Ill.
Plasteel Products Corp., Washington, Pa.
Republic Steel Corp., Cleveland, O.
Reynolds Metals Co., Richmond, Va.
Robertson Co., H.H., Pittsburgh, Pa.
Stransteel Corp. Div., National Steel Corp., Ecorse, Mich.
Walker Supply & Mfg. Co., Ecorse, Mich.

# PANELS, HEATING, ELECTRIC

Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn. (Glass) Can Arm Corp., Champlain, N. Y. Continental Electric Equipment Co., Cincinnati, O. Marviray, Inc., Newark, N. J.
Radiant Electric Heat Co., Springfield, Ill.
Sun-Tron Corp., Chicago, Ill.
Wiegand Co., Edwin L., Pittsburgh, Pa.

#### PANELS, PLASTIC, TRANSLUCENT MATERIAL

Alsynite Co. of America, San Diego, Calif. American Insulator Corp., New Freedom, Pa.
Barrett Div., Allied Chemical & Dye Corp., New York, N. Y. Campco Div., Chicago Molded Products Corp., Chicago, Ill. Chemold Co., Santa Monica, Calif. Filon Plastics Corp., Hawthorne, Calif. Formica Co., Cincinnati, O. Johns-Manville Fiber Glass Inc., Toledo, O. Kemlite Corp., Joliet, Ill. Laminated Sheet Products Corp., Norwood, Mass. Lynch Asbestos Co., Los Angeles, Calif. Marco Co., East Orange, N. J.
Naugatuck Chemical Div., U. S. Rubber Co., Naugatuck, Conn.
Pennsylvania Wire Glass Co., Philadelphia, Pa. Plasteel Products Corp., Washington, Pa. Quick Plastics, Div. of Quick Industries, Inc., Jackson, Mich. Resolite Corp., Zelienople, Pa. Roberston Co., H. H., Pittsburgh, Pa.

Seiberling Rubber Co., Plastics Div., Newcomerstown, O. Structoglas Inc., Subsidiary International Molded Plastics, Inc., Cleveland, O. Wasco Products, Inc., Cambridge, Mass.

# PANELS, PREFORMED, METAL SHEATHING

(For Building Exteriors)

Bowman Steel Corp., Pittsburgh, Pa.
Davidson Enamel Products, Inc., Lima, O. (Porcelain)
Erie Enameling Co., Erie, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Kawneer Co., Niles, Mich.
Republic Steel Corp., Cleveland, O.
Reynolds Metals Co., Richmond, Va.

#### PANELS, ROOF, METAL, PREFABRICATED

Consisting of Exterior Metal Sheet, insulating Material and Backup Sheet

Hess Mfg. Co., Quincy, Pa. (Aluminum)

# PANELS, WINDOW, AIR CONDITIONER

Russell Co., F. C., Columbiana, O.

# PAPER, ASBESTOS

Acme Asbestos Covering & Flooring Co., Chicago, Ill. Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. Ehret Magnesia Mfg. Co., Valley Forge, Pa. Johns-Manville, New York, N. Y. Keasbey & Mattison Co., Ambler, Pa. Nicolet Industries, Inc., Florham Park, N. J. Nicolet Industries, Inc., Norristown, Pa. Ruberoid Co., New York, N. Y. Standard Asbestos Mfg. Co., Chicago, Ill. Wilson, Inc., Grant, Chicago, Ill.

#### PAPER AND MEMBRANE, FOR CRAWL SPACE AND SUBFILL

See Barriers, Vapor

# PARTITIONS, METAL, PREFABRICATED, MOVABLE

Hauserman Co., E. F., Cleveland, O. Penn Metal Co., Inc., Boston, Mass.

### PARTS, REBUILT, FOR HEATING AND COOLING SYSTEMS

Adams Co., Dubuque, Iowa.
Brauer Supply Co., St. Louis, Mo.
Central Furnace & Stove Repair Co., St. Louis, Mo.
Cincinnati Stamping & Furnace Co., Cincinnati, Ohio
Eselgroth & Co., Roselle, N. J.
Foote Foundry Co., J. B., Fredericktown, Ohio.
Harvey, Inc., Sid, Valley Stream, N. Y. (Controls and burners)
Livingston. Inc., Marshall, Mich.
Metzner Stove and Furnace Supply Co., Kansas City, Mo.
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
National Foundry & Furnace Co., Dayton, Ohio.

### PASTE, ASBESTOS PAPER

Acme Asbestos Covering & Flooring Co., Chicago, Ill. Keasbey & Mattison Co., Ambler, Pa. Nicolet Industries, Inc., Florham Park, N. J. Rutland Fire Clay Co., Rutland, Vt. Standard Asbestos Mfg. Co., Chicago, Ill. Wilson, Inc., Grant, Chicago, Ill.

#### PATTERNS AND BLUE PRINTS

Elbows, Skylights, Fittings, Etc.

Gray, G. L., New Haven, Conn.

#### PERFORATED METAL

See Metals, Perforated, Sheet and Plate

# PERIMETER BASEBOARD RETURN GRILLES

See Grilles, Return Air, Baseboard

#### PERIMETER DUCT FITTINGS

See Duct Fittings

#### PERIMETER REGISTERS

See Diffusers, Air

#### **PILLOW BLOCKS**

See Bearings, Pillow Block

#### PILOT LIGHTS

See Controls, Pilots, Gas Burner

#### PIPE ANCHORS

See Anchors, Duct and Pipe

#### PIPE AND FITTINGS, CONDUCTOR

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.

Alabama Metal Lath Co., Birmingham, Ala. (Steel & copper)

Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)

American Metal Products, Los Angeles, Calif. (Alum.)

Argo Plastic Products, Cleveland, O. (Plastic)

Barnes Metal Products Co., Chicago, Ill. (Zinc, aluminum, galvanized and copper)
Berger Bros. Co., Philadelphia, Pa.
Berger Div., Republic Steel Corp., Canton, O. (Galvanized, stainless, copper)
Braden Mfg. Co., Inc., Terre Haute, Ind.
Carlon Products, Aurora, O. (Plastic)
Char-Gale Mfg. Co., Anoka, Minn.
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Cincinnati Elbow Co., Cincinnati, O. (Copper, aluminum, stainless and galvanized steel) Stainless and galvanized steer)
Conner Mfg. Co., Louisville, Ky.
Dieckmann Co., Ferdinand, Cincinnati, O. (Aluminum, copper)
Enderle, Inc., Ltd., Frank X., Los Angeles, Calif.
Galvan Mfg. Co., New Albany, Ind.
Globe Iron Roofing & Corrugating Co. Newport, Ky. Gray Metal Products, Inc., Rochester, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
Inland Steel Products Co., Milwaukee, Wis. (Copper, galvanized, aluminum) Johns-Manville, New York, N. Y. Klauer Mfg. Co., Dubuque, Iowa. (Galvanized steel) Labeled Metal Products Corp., Broadview, Ill. (Galvanized steel) La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galv. steel) Levow, Inc., David, South Hackensack, N. J. Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif. (Galv.) Matthiessen & Hegeler Zinc Co., La Salle, Ill. (Zinc)
Miller & Doing, Brooklyn, N. Y. (Ornamental)
Moncrief Lenoir Mfg. Co., Houston, Tex. (Steel, aluminum, copper) National Elbow and Fittings Corp., Long Island City, N. Y. New Delphos Mfg. Co., Delphos, Ohio. (Galv. steel)
Northwest Metal Products, Inc., Seattle, Wash. (Galvanized)
Obdyke, Inc., B. P., Philadelphia, Pa. (Copper, galv. & aluminum) Penn Supply & Metal Corp., Philadelphia, Pa. (Alum., copper, galv.) Permanent Products, Inc., St. Paul, Minn. (Glass fiber)

Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,

Republic Steel Corp., Cleveland, O. (Steel) Reynolds Metals Co., Richmond, Va. (Aluminum)

Dover, Ohio. (Galv. steel)

Riggin Metal Products, Inc., Kankakee, Ill.
Roofing & Supply Co., Chattanooga, Tenn. (Steel, copper)
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. (Galvanized, copper and aluminum) Schecter Bros. Co., Philadelphia, Pa. (Galv. steel & copper)
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Aluminum, copper, galvanized steel & zinc)
Sioux Steel Co., Sioux Falls, S. Dak.
Standard Metal Fabricating Co., Omaha, Nebr. (Galvanized) Superior Metal Fabricating Co., Niles, O. (Galvanized)
Thor Metal Products Co., Inc., Syracuse, N. Y. (Galv. & copper)
Tiffin Art Metal Co., Tiffin, Ohio (Galv., copper, stainless steel, aluminum) Union Sheet Metal Supply Co., Cleveland, O. United Sheet Metal Co., Inc., Columbus, O. (Galvanized, copper, aluminum)

Wallace Co., William, Meltalbestos Div., Belmont, Calif. (Galvanized and copper)
Wheeling Corrugating Co., Wheeling, W. Va. (Galv. steel)
Youngstown Sheet & Tube Co., Youngstown, O. (Steel)

#### PIPE AND FITTINGS, FURNACE

Pipe, Elbows, Tees, Collars, Cleanout Caps, Draw Bands, Reducers, Angles, Etc.

Acer & Whedon, Inc., Medina, N. Y Acme Furnace Fitting Co., Chicago, Ill. Acme Mfg. Co., Philadelphia, Pa.
Adelta Mfg. Co., Inc., Philadelphia, Pa. (Galv. & black)
Aireflo Furnace Pipe Co., Brighton, Mich. Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio. American Metal Products, Los Angeles, Calif. Armstrong Fittings Co., Des Moines, Ia. Badger Furnace Pipe Co., Madison, Wis. Badger Furnace Pipe Co., Madison, Wis.
Braden Mfg. Co., Inc., Terre Haute, Ind.
Buckeye Mfg. Inc., Columbus, Ohio.
Champion Furnace Pipe Co., Peoria, Ill.
Char-Gale Mfg. Co., Anoka, Minn.
Cincinnati Stamping & Furnace Co., Cincinnati, Ohio.
Conner Mfg. Co., Louisville, Ky. Corbman Bros., Inc., Philadelphia, Pa.
Creamer Industries, Inc., Maxwell Steel Div., Fort Worth, Tex.
Detroit Safety Furnace Pipe Co., Detroit, Mich.
Enderle, Inc., Ltd., Frank X., Los Angeles, Calif. Famous Furnace Co., Chicago, Ill.
Famous Furnace Co., Chicago, Ill.
Famous Furnace Co., Cleveland, O.
Felter Co., John, Houston, Tex.
Francer Mfg. & Supply Corp., East Milton, Mass. (Elbows)
Gary Steel Products Corp., Gary, Ind.
Grand Island Furnace & Supply Co., Grand Island, Nebr.
Grand Med. Products Inc. Replectors N. V. Gray Metal Products, Inc., Rochester, N. Y. Green Colonial Inc., Des Moines, Iowa.
Hart & Cooley Mfg. Co., Holland, Mich. (Gas vent)
Hawthorne Mfg. Corp., Hawthorne, Pa.
Henry Furnace Co., Medina, Ohio.
Home Furnace Co., Medina, Ohio.
Inland Steel Products Co., Milwaukee, Wis.
International Heater Co., Utica, N. Y.
J & J Sheet Metal Co., Van Dyke, Mich.
Jackes-Evans Mfg. Co., St. Louis. Mo.
Juniper Elbow Co., Inc., Middle Village, L.I., N. Y.
Keith Furnace Co., Des Moines, Iowa.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Labeled Metal Products Corp., Broadview, Ill.
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
Lennox Industries Inc., Marshalltown, Iowa.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
(Galv.) Green Colonial Inc., Des Moines, Iowa (Galv.) Lyman Co., H. B., Southampton, Hampshire Co., Mass. Lyman Co., H. B., Southampton, Hampshire Co., Made-Rite Co., Inc., Newport, Ky. Maple City Furnace Co., Monmouth, Ill. Maurlee Co., Inc., Woodbury Hts., N. J. Metal Fabricators, Inc., Charlotte, N. C. Meyer & Bro. Co., F., Peoria, Ill. Mirror Patented Stove Pipe Co., Hartford, Conn. Mitchell Metal Works, Mike, Kosciusko, Miss. Modern Metals, Inc., Houston, Tex.

aluminum) aluminum)
Perfection Furnace Pipe Co., Toledo, Ohio.
Premier Furnace Co., Dowagiac, Mich.
Quality Heating Supply Co., Cincinnati, O.
Quass & Sons, Chas. E., Canton, O.
Ralph Mfg. Co., Inc., Wadsworth, O.
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp. Dover, Ohio. Riggin Metal Products, Kankakee, Ill. Roofing & Supply Co., Chattanooga, Tenn.
Round Oak Co., Inc., Dowagiac, Mich.
Ryniker Steel Products Co., Billings, Mont. (Aluminum and galvanized) St. Clair Metal Products Co., Cleveland, Ohio. Scheeter Bros. Co., Philadelphia, Pa. Sheet Metal Mfg. Co., Youngstown, O. Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. Sheet Metal Specialty Div., Follansbee Steel Corp., Follansbee, W. Va. W. Va.
Sioux Steel Co., Sioux Falls, S. D.
Snappy Inc., Detroit Lakes, Minn.
Southbridge Roofing Co., Inc., Southbridge, Mass.
Speedy Mfg. & Sales Co., Amarillo, Tex.
Standard Metal Fabricating Co., Omaha, Nebr.
Steel City Furnace Corp., Springdale, Pa.
Stratton & Terstegge Co., Louisville, Ky. Superior Metal Fabricating Co., Niles, O. Thor Metal Products Co., Inc., Syracuse, N. Y. Tierney Rotor Ventilator Co., Minneapolis, Minn. Tiffin Art Metal Co., Tiffin, O.
Tri-State Heating Supply, Inc., Pt. Wayne, Ind.
Union Sheet Metal Supply Co., Cleveland, O.
United States Register Co., Battle Creek, Mich.
Victaulic Co. of America, Elizabeth, N. J. Victaulic Co. of America, Elizabeth, N. J.
Viking Mfg. Corp., Cleveland, O.
Wallace Co., William, Metalbestos Div., Belmont, Calif.
Waverly Heating Supply Co., Beverly, Mass.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheelock Co., Geo. F., The, Birmingham, Ala.
Wilder Products Co., Springfield, Ohio.
Williamson, Co., The, Circinati, O. (Aluminum or galvani Williamson Co., The, Cincinnati, O. (Aluminum or galvanized)

Penn Supply & Metal Corp., Philadelphia, Pa. (Copper and

Peerless Corp., Indianapolis, Ind.

#### PIPE JOINT TAPE

See Tape, Duct, Adhesive

#### PIPE LOCK FORMERS

See Machines, Lock Forming

#### PIPE, SPIRAL, FOR HIGH VELOCITY AIR SYSTEMS

See Ducts, Spiral, Welded

#### PITTSBURGH LOCK FORMING MACHINES

See Machines, Pittsburgh Lock Forming

#### PLASTIC SHEETS

See Sheets, Plastic, For Ducts and Hoods

### PLASTIC, POWDERS AND RESINS (BASIC MATERIALS)

Barrett Div., Allied Chemical & Dye Corp., New York, N. Y. Chemical Sales Div., Firestone Plastics Co., Pottstown, Pa. Dow Chemical Co., Midland, Mich. Dow Corning Corp., Midland, Mich. du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
Durez Plastics Div., Hooker Chemical Corp., North Tonawanda, N. Y. Eastman Chemical Products, Inc., Subsidiary, Eastman Kodak Co., Kingsport, Tenn.
General Electric Co., Chemical & Materials Dept., Pittsfield,
Mass. (Phenolic)
General Tire & Rubber Co., Akron, O.
Goodrich Chemical Co., B. F., Cleveland, O.

num)

Moncrief Furnace Co., Atlanta, Ga. Montag Inc., Portland, Ore.

Morrison Steel Products, Inc., Buffalo, N. Y.

Northwest Metal Products, Inc., Seattle, Wash. (Black & galv.) Olsen Mfg. Co., The C. A., Elyria, O. Paramount Supply Co., Lincoln, Nebr. (Galvanized and alumi-

Interchemical Corp., Finishes Div., Newark, N. J. (Polyester

Interchemical Corp., Finishes Div., Newark, N. J. (Polyester resins)
Koppers Co., Inc., Tar Products Div., Pittsburgh, Pa.
Monsanto Chemical Co., Springfield, Mass.
Monsanto Chemical Co., St. Louis, Mo.
Naugatuck Chemical Div., U. S. Rubber Co., Naugatuck, Conn.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Plastics Div., Eastman Chemical Products, Inc., Kingsport,
Tenn. (Acetate, butyrate, propionate, polypropylene, polyethylene) lene)

Polymer Corp., Reading, Pa. Union Carbide Plastics Co., Div. of Union Carbide Corp., New York, N. Y.

United States Rubber Co., New York, N. Y.

#### PLASTIC TRANSLUCENT PANELS

See Panels, Plastic, Translucent Material

#### PLASTIC TUBING

See Tubing, Fittings and Valves, Plastic

# PLATES, ALLOY

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless steel) Aluminum Co. of America, Pittsburgh, Pa.

American Brass Co., Waterbury, Conn. (Copper) Armco Steel Corp., Middletown, Ohio. (Stainless steel)

Belmont Smelting & Refining Wks., Inc., Brooklyn, N. Y. (Zinc, lead)

Byers Co., A. M., Pittsburgh, Pa. (Steel)

Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper

and its alloys)

Crucible Steel Co. of America, Pittsburgh, Pa. (Stainless and high alloy)
Inland Steel Co., Chicago, Ill.

International Nickel Co., Inc., New York, N. Y. (Nickel & nickel

alloys) Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Heat treated) Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. (Alu-

minum)

Lukens Steel Co., Coatesville, Pa. (Nickel, chromium, copper, manganese, molybdenum, alloys)

Republic Steel Corp., Cleveland, O. (Steel)

Revere Copper & Brass Inc., New York, N. Y. (Copper & copper base)

Reynolds Metals Co., Richmond, Va. (Aluminum)
Sharon Steel Corp., Sharon, Pa. (Stainless)
United States Steel Corp., Pittsburgh, Pa.
Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp., New
York, N. Y. (Stainless)

Youngstown Sheet & Tube Co., Youngstown, Ohio.

# PLATES, HUMIDIFIER

Auto-Flo Corp., Detroit, Mich. Auto-Flo Corp., Detroit, Mich.
Automatic Humidifier Co., Cedar Falls, Ia.
Cleveland Humidifier Co., Cleveland, O.
Econo-Matic Products Co., Inc., Detroit, Mich.
Fairway Division, Detroit, Mich.

General Filters, Inc., Novi, Mich.

Maid-O'-Mist Inc., Chicago, Ill.

Multiple Ceramics, Buffalo, N. Y.

Skuttle Mfg. Co., Milford, Mich.

Viking Air Products, Div. National-U.S. Radiator Corp.,

Cleveland, O.

# PLATES, NAME

Alan Wood Steel Co., Conshohocken, Pa. Allied Decals, Inc., Cleveland, O. Croname, Inc., Chicago, Ill.
North Shore Nameplate Inc., Bayside, L. I., N.Y.
Seton Name Plate Co., New Haven, Conn.

Southern Name Plate Shop, New Orleans, La.

#### PLATES, STEEL

Armco Steel Corp., Middletown, Ohio. Bethlehem Steel Co., Bethlehem, Pa. Byers Co., A. M., Pittsburgh, Pa. (Alloy, carbon, stainless)

Crucible Steel Co. of America, Pittsburgh, Pa.
Eastern Stainless Steel Corp., Baltimore, Md. (Stainless)
Granite City Steel Co., Granite City, Ill.
Inland Steel Co., Chicago, Ill.
International Steel Co., Evansville, Ind.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Lukens Steel Co., Coatesville, Pa.
Republic Steel Corp., Cleveland, O.
Sharon Steel Corp., Sharon, Pa.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp., New
York, N. Y.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

# PLATES, WROUGHT IRON

Byers Co., A. M., Pittsburgh, Pa.

# PLENUM CHAMBERS, PREFABRICATED

See Chambers, Plenum, Profabricated

#### **POLISHERS**

See Buffers, Orinders, Polishers and Sanders

#### POWER GROOVERS

See Machines, Sheet Metal Working, Grooving

#### POWER SHEARS

See Machines, Sheet Metal, Shears

# PRECIPITATORS, ELECTROSTATIC

See Filters, Air, Electrostatic

# PREFABRICATED CHIMNEYS

See Chimneys, Prefabricated

#### PREFABRICATED DUCTS

See Ducts, Prefabricated

# PREFABRICATED PLENUM CHAMBERS

See Chambers, Plenum, Prefabricated

#### PRESSES

See Machines, Sheet Metal, Presses

# PROPELLER FANS

See Fans, Propeller Type

# PROTECTIVE COATING

See Waterproofing; Coatings, Metal Protective

### PROTECTIVE MATERIALS FOR POLISHED METAL SURFACES

See Materials, Protective, for Polished Metal Surfaces

# PROTECTORS, WINDOW AIR CONDITIONER

Bemis Bro. Bag Co., St. Louis, Mo. Bogene, Inc., New York, N. Y. Budlew Products Co., Chicago, Ill.

Campbell Mfg. Co., Inc., Dallas, Tex.
International Covers for Air Conditioners Corp., New York,
N. Y.
Tulsa Canvas Products Co., Inc., Tulsa, Okla.
Wickford Products, Inc., New York, N. Y.

# PSYCHROMETERS, SLING AND HAND ASPIRATED

Airserco Mfg. Co., Pittsburgh, Pa.
Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.
Desomatic Products, Inc., Falls Church, Va.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
G. M. Mfg. Co., New York, N. Y.
General Scientific Equipment Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
H-Ill & Co., E. Vernon, Lake Geneva, Wis.
Johnson Service Co., Milwaukee, Wis.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Norwood, Cincinnati, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
Weksler Instruments Corp., Freeport, N. Y.

### PULLEYS, FAN AND MOTOR

American Pulley Co., Philadelphia, Pa.

Arizona Maintenance Co., Tucson, Ariz.
Barke Products, Inc., Bay Village, O.
Browning Mfg. Co., Inc., Mayswille, Ky.

Chicago Die Casting Mfg. Co., Chicago, Ill.
Congress Drives, Div. Tann Corp., Detroit, Mich.
Dayton Industrial Products Co., Melrose Park, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Durkee-Atwood Co., Minneapolis, Minn.
Gates Rubber Co., Denver, Colo.
Goldens' Foundry & Machine Co., Columbus, Ga.
Hi-Lo Mfg. Co., Minneapolis, Minn. (Variable pitch)
Jones Machinery Div., Hewitt-Robins Inc., Chicago, Ill.
Lau Blower Co., Dayton, Ohio.
Lewellen Mfg. Co., Columbus, Ind. (Variable speed)
Lovejoy Flexible Coupling Co., Chicago, Ill.
Maurey Mfg. Corp., Chicago, Ill.
Mitchell Co., Inc., John E., Dallas, Texas.
Pyott Foundry & Machinery Co., Chicago, Ill.
Replacement Parts, Inc., Euclid, O.
Spun Steel Div., Automatic Steel Products, Inc., Canton, Ohio.
Utility Fan Corp., Div., of Utility Appliance Corp., Los Angeles, Calif.
Wood's Sons Co., T. B., Chambersburg, Pa.
Zatko Metal Products Co., Euclid, O.

# **PULLEYS, FURNACE CHAIN**

Hart & Cooley Mfg. Co., Holland, Mich. United States Register Co., Battle Creek, Mich.

#### PUMP COMPOUNDS

See Compounds, Winter Protective, Pump

#### **PUMPS, CONDENSATE**

For Removing Condensation from Cooling Colls and Air Conditioning Units

Arizona Maintenance Co., Tucson, Ariz.

Ashcraft Co., J. P., Dallas, Tex.
Beach-Russ Co., New York, N. Y.
Burn-Rite Products Co., Yonkers, N. Y.

Eastern Industries Inc., Hamden, Conn.

Eddington Metal Specialty Co., Eddington, Pa.

Gelber & Sons, Inc., Chicago, Ill.

Gorman-Rupp Industries, Inc., Belleville, O.

Jabsco Pump Co., Costa Mesa, Calif.

Kesco Products, Springfield Gardens, N. Y.

Little Giant Pump Co., Div. of Little Giant Vaporizer Co., Inc.,

Oklahoma City, Okla.

March Mfg. Co., Skokie, Ill.

Midwest Pump Div., Sherwood Mfg. Co., Independence, Mo. Peerless of America, Inc., Chicago, Ill. Penberthy Mfg. Co., Detroit, Mich. Standard Electric Mfg. Co., Inc., West Berlin, N. J. Union Pump Co., Battle Creek, Mich.

# PUMPS, EVACUATING, PORTABLE

For Service and Installation Work

Airserco Mfg. Co., Pittsburgh, Pa.
Beach-Russ Co., New York, N. Y.
Bell & Gossett Co., Morton Grove, Ill.
Drying Systems Co., Chicago, Ill.
Vehicle Products Div., Robinair Mfg. Corp., Montpelier, O.

# PUMPS, FUEL, OIL BURNER

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Barclay, Inc., Robt., Chicago, Ill. Kraissl Co., Inc., Hackensack, N. J. Roper Corp., Geo. D., Rockford, Ill. Silent-Flame Products, Blue Point Electronics Corp., Blue Point, L. I., N.Y. Sundstrand Engineering Co., Rock Island, Ill. Sundstrand Hydraulics, Rockford, Ill. Tuthill Pump Co., Chicago, Ill. Union Pump Co., Chicago, Ill. Union Pump Co., Cedar Falls, Iowa.

### PUMPS, FUEL OIL, FOR OVERHEAD SYSTEMS

See Systems, Fuel Oil Pumping

# PUMPS, RECIRCULATING, EVAPORATIVE COOLER

Buffalo Forge Co., Buffalo, N. Y.
Burn-Rite Products Co., Yonkers, N. Y.
Essick Mfg. Co., Los Angeles, Calif.
Pairbanks, Morse & Co., Chicago, Ill.
G & S Mfg. Co., Phoenix, Ariz.
International Metal Products Co., Phoenix, Ariz.
Jabsco Pump Co., Costa Mesa, Calif.
Kraiss! Co., Inc., Hackensack, N. J.
Little Giant Pump Co., Div. of Little Giant Vaporizer Co., Inc., Oklahoma City, Okla.
Midwest Mfg. Co., Lawrence, Kans.
Midwest Pump Div., Sherwood Mfg. Co., Independence, Mo.
Morey, Dan, Los Angeles, Calif.
National Engineering & Mfg. Co., Sedalia, Mo.
Palmer Mfg. Corp., Phoenix, Ariz.
Ruthman Machinery Co., Cincinnati, O.
Standard Electric Mfg. Co., Inc., West Berlin, N. J.
Union Pump Co., Battle Creek, Mich.
Wright Mfg. Co., Phoenix, Ariz.
Yeomans Bros. Co., Melrose Park, Ill.

#### PUMPS, REFRIGERANT TRANSFER, FOR FILLING SERVICE CYLINDERS

Belt-Ice Corp., Seattle, Wash.
Blackmer Pump Co., Grand Rapids, Mich.
Gelber & Sons, Inc., Chicago, Ill.
Heatron, Inc., York, Pa.
Kerotest Mfg. Co., Pittsburgh, Pa.
Kinney Mfg. Div., New York Air Brake Co., Boston, Mass.
Kohlenberger Engineering Corp., Fullerton, Calif.
Robinair Mfg. Corp., Edgerton, O.
Roth Co., Roy E., Rock Island, Ill.
Watkins Co., J. E., Maywood, Ill.

#### PUNCHES AND SHEARS COMBINED, LEVER OPERATED

Berkroy Products Co., Los Angeles, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Diesel Power, Inc., Greenville, Pa.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Heinrich Tools, Inc., Racine, Wis.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., Inc., J. F., Burlington, Vt.

Niagara Machine & Tool Works, Buffalo, N. Y. Peck, Stow & Wilcox Co., Southington, Conn. Thor Tool & Die Co., San Leandro, Calif.

# PUNCHES, BENCH

Allen Industries, Alva, Clinton, Mo.
Berkroy Products Co., Los Angeles, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Chase Mfg. Co., Pasadena, Calif.
Diamond Machine Tool Corp., Pico-Rivera, Calif.
Duro-Dyne Corp., Farmingdale, N. Y.
Heinrich Tools, Inc., Racine, Wis.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., J. F., Burlington, Vt.
Merchandising & Mfg. Associates, Inc., Lancaster, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
O'Neil-Irwin Mfg. Co., Lake City, Minn.
Peck, Stow & Wilcox Co., Southington, Conn.
Punch Products Corp., Niagara Falls, N. Y.
Thor Tool & Die Co., San Leandro, Calif.
Whitney Mfg. Co., W. A., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

# **PUNCHES, HAND**

Berkroy Products Co., Los Angeles, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Damascus Steel Products Corp., Rockford, Ill.
Davis & Son Machine Works, Los Angeles, Calif. (Button punch)
Diamond Machine Tool Corp., Pico-Rivera, Calif.
Duro-Dyne Corp., Farmingdale, N. Y.
Excelsior Tool & Machine Co., East St. Louis, Ill.
H-P Tool Mfg. Corp., Philadelphia, Pa.
Hendley & Whittemore Co., Beloit, Wis.
Kidder Mfg. Co., J. F., Burlington, Vt.
Mephisto Tool Co., Inc., Hudson, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Osborne & Co., C. S., Harrison, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Reiner & Campbell Co., Inc., Newark, N. J.
Snap-on Tools Corp., Kenosha, Wis.
Stanley Electric Tools Div., The Stanley Works, New Britain,
Conn.
Thor Tool & Die Co., San Leandro, Calif.
Whitney Metal Tool Co., Rockford, Ill.

# PUNCHES, POWER

See Machines, Sheet Metal Working, Punches

#### QUADRANTS, DAMPER

See Regulators, Duct Damper Sets; Hardware, Duct Fitting

#### RACKS, SHEET STORAGE

Palmer-Shile Co., Detroit, Mich.

#### RAILS, LOUVER

Cain Mfg. Inc., Birmingham, Ala.

# RAILS, VANE, FOR DUCTS

Airo Industries, Los Angeles, Calif. Cain Mfg. Inc., Birmingham, Ala. Duro-Dyne Corp., Farmingdale, N. Y. Elgen Mfg. Corp., Long Island City, N. Y.

#### RAIN CARRYING EQUIPMENT

See Outters; Gutter Accessories; Pipe and Fittings, Conductor

### REBUILT SHEET METAL WORKING MACHINES

See Mackinery, Sheet Metal, Robuilt and Used

# RECESSED WALL HEATERS

See Furnaces, Forced Warm Air, Wall; Furnaces, Warm Air, Graylty

# RECORDERS, HUMIDITY, PORTABLE

Bristol Co., Waterbury, Conn.
Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.
Rozboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
General Controls Co., Glendale, Calif.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Newmack Corp., Elyria, O.
Palmer Thermometers, Inc., Norwood, Cincinnati, O.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Div., American Machine & Metals, Inc.,
Sellersville, Pa.
Weksler Instruments Corp., Freeport, N. Y.

# RECORDERS, TEMPERATURE, PORTABLE

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bailey Meter Co., Cleveland, Ohio.
Bristol Co., Waterbury, Conn.
Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.
Defender Instrument & Regulator Co., Boody, Ill.
Dickson Co., Chicago, Ill.
Foxboro Co., Foxboro, Mass.
Friez Instrument Div., Bendix Aviation Corp., Baltimore, Md.
General Controls Co., Glendale, Calif.
Heat-Timer Corp., New York, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Cincinnati, Ohio.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Div., American Machine & Metals, Inc.,
Sellersville, Pa.
Weksler Instruments Corp., Freeport, N. Y.
Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.

# RECOVERERS, HEAT, SMOKE PIPE

Air Conditioning Engineering Co., Cambridge, Mass.
Autogas Co., Bellwood, Ill.
Cary Mfg. Co., Waupaca, Wis.
Gerhardt, W. F., Richmond, Va.
Hampden Heating Supply, Springfield, Mass.
Heat Reclaimer Mfg. Div., Dolin Metal Sales Corp., Brooklya,
N. Y.
Ro-An Heat Reclaimer Corp., Amityville, N. Y.
Safety Stack Heater Co., Brooklyn, N. Y.
Therm Gas Generator Co., Inc., Seattle, Wash.
Therm Oil Burner Co., Seattle, Wash.

# RECOVERY UNITS, HEAT, AIR TO AIR

See Units, Heat Recovery, Air to Air

# REELS, SHEET METAL WINDING

Dahlstrom Machine Works, Chicago, Ill.

# REFRACTORIES

Armstrong Cork Co., Lancaster, Pa. (Insulating)
Babcock & Wilcox Co., Refractories Div., New York, N. Y.
Botfield Refractories Co., Philadelphia, Pa.
Eselgroth & Co., Roselle, N. J.
Green Fire Brick Co., A. P., Mexico, Mo. (All types fire clay)
Iron-Hide Sales Co., Matawan, N.J.

Johns-Manville, New York, N. Y.
Kolb Refractories Co., Philadelphia, Pa.
Monogram Products Co., Inc., Philadelphia, Pa.
Pyrolite Products Co., Cleveland, Ohio.
Quigley Co., Inc., New York, N. Y.
Ramtite Co., Div. S. Obermayer Co., Chicago, Ill.
Rehm-Schiess Comb. Eng. Service Co., Jamaica, N. Y.
Refractory & Insulation Corp., New York, N. Y.
Rex Roto Corp., Walled Lake, Mich.
Robinson Clay Product Co., Akron, O.
Robinson Insulation Co., Great Falls, Mont. (Vermiculite)
Rutland Fire Clay Co., Rutland, Vt. (Retort Cement)
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Saureisen Cements Co., Pittsburgh, Pa.
Standard Fuel Engineering Co., Detroit, Mich.
United States Stoneware Co., New York, N. Y.

# REFRIGERANT LINES, FLEXIBLE CONNECTIONS

See Absorbers, Vibration, for Refrigerant Lines

#### REFRIGERANTS

American Potash & Chemical Corp., Los Angeles, Calif.
Ansul Chemical Co., Refrigeration Div., Marinette, Wis. (Methyl chloride, sulphur dioxide)
Carrier Corp., Syracuse, N. Y.
Dow Chemical Co., The, Midland, Mich.
du Pont de Nemours & Co., Inc., E. I. Kinetic Chemicals Div.,
Wilmington, Del. ("Freon" fluorinated hydro carbon refrigerants)
General Chemical Div., Allied Chemical Corp., New York,
N. Y.
Pennsalt Chemicals Corp., Philadelphia, Pa.
Pennsylvania Engineering Co., Philadelphia, Pa.
Solvay Sales Div., Allied Chemical & Dye Corp., New York,
N. Y.
Union Carbide Chemicals Co., Div. Union Carbide Corp., New
York, N. Y.

# REFRIGERANT TRANSFER SYSTEMS

See Pumps, Refrigerant Transfer

#### REFRIGERATING UNITS

See Unitary Air Conditioners, Summer, Condensing Unit for Split System

#### REFRIGERATION CHASSIS

See Unitary Air Conditioners, Summer, Refrigeration Chaesis

#### REGISTER HEADS

See Duct Fittings

#### REGISTER SEALS

See Seals for Registers

# REGISTERS, HEATING, VENTILATING AND AIR CONDITIONING

A & A Register Co., Cleveland, Ohio.

A-J Mfg. Co., Kansas City, Mo.
Air Control Products, Inc., Coopersville, Mich.
Air Devices, Inc., New York, N. Y.
Air Distribution Products Co., Los Angeles, Calif.
Air-Factors, Inc., Monrovia, Calif.
Airguide Plastics Corp., Miami, Fla. (Nylon)
American Warming & Ventilating Co., Toledo, Ohio.
Arizona Maintenance Co., Tucson, Ariz.
Auer Register Co., Cleveland, Ohio.
Austin Engineering & Mfg. Co., Inc., Ysleta, Tex.
Barber-Colman Co., Rockford, Ill.
Carnes Corp., Verona, Wis.
Char-Gale Mfg. Co., Anoka, Minn.
Cleveland Register & Grille Mfg. Co., Cleveland, O.

Connor Engineering Corp., Danbury, Conn.
Controlair Mfg. Co., Los Angeles, Calif.
Corbman Bros., Inc., Philadelphia, Pa.
Diamond Mfg. Co., Wyoming, Pa.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Dry Mfg. Co., Winters, Tex.
Empire Ventilation Equipment Co., Long Island City, N. Y.
General Air Products Corp., Cedar Grove, N. J.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Gentle-Flo Co., Malvern, Pa.
Gerwin Industries, Thermo-Base Div., Michigan City, Ind.
Harrington & King Perforating Co., Inc., Chicago, Ill.
Harrington & King Perforating Co., Inc., Chicago, Ill.
Harrington & King Perforating Co., Inc., Chicago, Ill.
Hart & Cooley Mfg. Co., Carbondale, Pa.
Independent Register Co., Cleveland, Ohio.
Juniper Elbow Co., Inc., Middle Village, L. I., N. Y.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Krauser-Boyd, Inc., North Tonawanda, N. Y.
Krauser-Boyd, Inc., Los Angeles, Calif.
Lima Register Co., Lima, Ohio.
Lynn Corp., Inc., Marshall, Mich.
Made-Rite Co., Inc., Newport, Ky.
Maurlee Co., Inc., Newport, Ky.
Maurlee Co., Inc., Woodbury Hts., N. J.
Midon Register Corp., St. Paul, Minn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moncrief Furnace Co., Atlanta, Ga.
National Grille & Register Co., Cleveland, O.
Patco Mfg. Co., Inc., Philadelphia, Pa.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Rhoads Engineering Corp., Culver City, Calif.
Rock Island Register Co., Rock Island, Ill.
Shoemaker Mfg. Co., Seattle, Wash.
Smith Co., J. B., Philadelphia, Pa.
Standard Stamping & Perforating Co., Chicago, Ill.
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.
United States Register Co., Battle Creek, Mich.
Universal Diffuser Corp.. Tuckahoe, N. Y.
Warren Register and Grille, Inc., Miami, Fla.
Waterloo Register Co., Inc., Weterloo, Ia.
Wilde Register & Grille Co., Detroit, Mich.
Young Regulator Co. Cleveland, Ohio.

# REGISTERS, SLOT TYPE

Air-Factors, Inc., Monrovia, Calif. Titus Mfg. Corp., Waterloo, Ia. United States Register Co., Battle Creek, Mich. Universal Diffuser Corp., Tuckahoe, N. Y.

# REGULATORS, DUCT DAMPER SETS

Acme Mfg. Co., Philadelphia, Pa.
Adams Co., Dubuque, Iowa.
Air Control Products, Inc., Coopersville, Mich.
Barber-Colman Co., Rockford, Ill.
Cole-Sewell Engineering Co., St. Paul, Minn.
Corbman Bros., Inc., Philadelphia, Pa.
Duro-Dyne Corp., Farmingdale, N. Y.
Elgen Mfg. Corp., Long Island City, N. Y.
Possum Damper Control Co., St. Paul, Minn.
General Controls Co., Glendale, Calif.
Gerett Corp., M. A., Milwaukee, Wis.
Hart & Cooley Mfg. Co., Holland, Mich.
Malco Products, Minneapolis, Minn.
Martens & Stormoen, West Quincy, Mass.
Mechanical Contractors Supply Co., Inc., New York, N. Y.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Severson Mfg. & Supply Co., Milwaukee, Wis.
Thermal Agency, Houston, Tex.
United States Register Co., Battle Creek, Mich.
Young Regulator Co., Cleveland, Ohio.

# REGULATORS, FURNACE DRAFT, MECHANICAL

Atlas Valve Co., Newark, N. J.

Defender Instrument & Regulator Co., Boody, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Hays Corp., Michigan City, Ind.

Heatcrafters Manufacturers, Baileys Harbor, Wis. Kol-Master Corp., Oregon, Ill. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. National Fuel Conservation Co., Inc., White Plains, N. Y. Quickdraft Co., Canton, O.

### RELAYS, ELECTRICAL

See Controls, Relay

#### REMOTE AIR CONDITIONING UNITS

See Unitary Air Conditioners, Summer, Coil; Unitary Air Conditioners, Summer, Condensing Unit for Split System

# REMOVER, SOOT

Ampion Corp., Long Island City, N. Y.
Coleman Co., Everett, Mass.
Coughlan Co., G. N., West Orange, N. J.
General Filters, Inc., Novi, Mich.
Hasko Utilities Co., New York, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Magnus Chemical Co., Garwood, N. J.
Marine Electrolysis Eliminator Co., Seattle, Wash.
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Miller Products Co., Lansing, Mich.
Nalco Chemical Co., Chicago, Ill.
Norman Chemical Co., St. Paul, Minn.
North American Mogul Products Co., Cleveland, Ohio.
Park-Hill Chemical Corp., Mt. Vernon, N. Y.
Red Wing Oil Burner Co., Inc., Medford, Mass.
S.O.S. Products Co., Inc., Brooklyn, N. Y.
Schaefer Chemical Products Co., Saginaw, Mich.
Stewart-Hall Chemical Corp., Mt. Vernon, N. Y. (Aerosol type) Tamms Industries Co., Chicago, Ill.

### REPLACEMENT PARTS, REBUILT FOR HEATING AND COOLING SYSTEMS

See Parts, Rebuilt, for Heating and Cooling Systems

#### RETURN AIR FACES AND INTAKES

See Faces, Return Alr

# RIDGE ROLL, SHEET METAL

Alabama Metal Lath Co., Birmingham, Ala. (Steel)
Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)
American Steel & Wire Div., U. S. Steel Corp., Cleveland, Appleton Supply Co., Inc., Appleton, Wis. (Galvanized steel, Berger Bros. Co., Philadelphia, Pa. Berger Div., Republic Steel Corp., Canton, O. (Galvanized, stainless steel, copper)
Bethlehem Steel Corp., Panton, O. (Galvanized, stainless steel, copper)
Bethlehem Steel Corp., Pittsburgh, Pa.
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper)
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
Inland Steel Products Co., Milwaukee, Wis. (Galvanized)
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. (Aluminum) minum) La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis. (Galvanized) Matthiessen & Hegeler Zinc Co., La Salle, Ill. (Zinc)
New Delphos Mfg. Co., Delphos, O. (Galvanized)
Newport Rolling Mill Co., Newport, Ky.
Nichols Wire & Aluminum Co., Davenport, Iowa. (Aluminum) Northwest Metal Products, Inc., Seattle, Wash. (Galvanized) Penn Supply & Metal Corp., Philadelphia, Pa. (Galvanized, alu-

Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, Ohio. (Galvanized)

Republic Steel Corp., Cleveland, O.

Reynolds Metals Co., Richmond, Va. (Aluminum)
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. (Copper, aluminum, galvanized, zinc) Sioux Steel Co., Sioux City, S. D. (Galv. & copper)
Southbridge Roofing Co., Inc., Southbridge, Mass.
Steelcraft Mfg. Co., Rossmoyne, O. (Galvanized)
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
Tiffin Art Metal Co., Tiffin, Ohio. (Galv. copper, stainless steel, aluminum) Wallace Co., W William, Metalbestos Div., Belmont, Calif. (Galvanized)

#### RIDGE VENTILATORS

See Ventilators, Roof

### RIVETS, ALLOY

Alpha Metals, Inc., Jersey City, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Harper Co., H. M., Morton Grove, Ill.
Hassall, Inc., John, Westbury, L. I., N. Y.
Huck Mfg. Co., Detroit, Mich. (Blind)
Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass. (Silver, platinum)

Pop Rivet Div., United Shoe Machinery Corp., Shelton, Conn. Republic Steel Corp., Cleveland, Ohio.

Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

# RIVETS, ALUMINUM

Aluminum Co., of America, Pittsburgh, Pa.
Chicago Rivet & Machine Co., Bellwood, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Harper Co., H. M., Morton Grove, Ill.
Hassall, Inc., John, Westbury, L. I., N. Y.
Huck Mfg, Co., Detroit, Mich. (Blind)
Pop Rivet Div., United Shoe Machinery Corp., Shelton, Conn.
Remodik Metals Co. Lovierille, Kraille, Krail Reynolds Metals Co., Louisville, Ky. Townsend Co., Engineered Fasteners Div., Ellwood City, Pa. Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

# RIVETS, BLIND FASTENING

Bowman Products Co., Cleveland, O. du Pont de Nemours & Co., Inc., E. I., Wilmington, Del. Huck Mfg. Co., Detroit, Mich. Pop Rivet Div., United Shoe Machinery Corp., Shelton, Conn. Southco Div., South Chester Corp., Lester, Pa. Townsend Co., Engineered Fasteners Div., Ellwood City, Pa.

# RIVETS, BRASS OR COPPER

Chase Brass & Copper Co., Inc., Waterbury, Conn. Chicago Rivet & Machine Co., Bellwood, Ill. Harper Co., H. M., Morton Grove, Ill. Hassall, Inc., John, Westbury, L. I., N. Y. Hussey & Co., C. G., Pittsburgh, Pa. (Copper) Tauston & Co., Inc., John H., New York, N. Y. Townsend Co., Engineered Fasteners Div., Ellwood City, Pa. Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

#### RIVETS, IRON

Chicago Rivet & Machine Co., Bellwood, Ill. Hassall, Inc., John, Westbury, L. I., N. Y. Townsend Co., Engineered Fasteners Div., Ellwood City, Pa. Tubular Rivet & Stud Co., Wollaston, Mass.

#### RIVETS, STEEL

Anti-Corrosive Metal Products Co., Inc., Castleton-on-Hudson, N. Y. (Stainless) Bethlehem Steel Co., Bethlehem, Pa. Chase Brass & Copper Co., Inc., Waterbury, Conn. Cherry Rivet Co., Los Angeles, Calif. (Blind) Chicago Rivet & Machine Co., Bellwood, Ill. Clark Bros. Bolt Co., Millale, Conn. Hassall, Inc., John, Westbury, L. I., N. Y.

Plasteel Products Co., Washington, Pa.

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Huck Mfg. Co., Detroit, Mich. (Blind)
Pop Rivet Div., United Shoe Machinery Corp., Shelton, Conn.
Republic Steel Corp., Cleveland, Ohio.
Townsend Co., Engineered Fasteners Div., Ellwood City, Pa.
Tubular Rivet & Stud Co., Wollaston (Quincy) Mass.

#### ROD CUTTERS

See Machines, Sheet Metal Working, Rod Cutting

# ROD, WELDING

Air Reduction Sales Co., New York, N. Y.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Alluminum Co. of America, Pittsburgh, Pa.
American Brass Co., New York, N. Y.
American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.
Arcos Corp., Philadelphia, Pa. (Stainless steel)
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Chemetron Corp., Chicago, Ill.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Hobart Bros. Co., Troy, Ohio.
International Nickel Co., Inc., New York, N. Y. (Nickel & nickel alloys)
Laramy Products Co., Hingham, Mass. (Plastic)
Lincoln Electric Co., Cleveland, O.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Marquette Mg. Co., Inc., Minneapolis, Minn.
McKay Co., Pittsburgh, Pa.
Metal & Thermit Corp., Rahway, N. J.
Mueller Brass Co., Port Huron, Mich.
Page Steel & Wire Div., American Chain & Cable Co., Inc.,
Monessen, Pa.
Revere Copper & Brass Inc., New York, N. Y.
Sight Feed Generator Co., West Alexandria, Ohio.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Tennessee Fabricating Co., Memphis, Tenn.
Victor Equipment Co., San Francisco, Calif.
Wall Colmonoy Corp., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

# ROLL FORMERS

See Machines, Sheet Metal Working, Silp Roll Forming

#### ROOF CEMENT

See Cement, Roof

### ROOF DECKING

See Decking, Roof, Metal

# ROOF TRIM, PREFABRICATED, EAVES, RAKES, GRAVEL STOPS, ETC.

Alabama Metal Lath Co., Birmingham, Ala.
Appleton Supply Co., Inc., Appleton, Wis.
Cheney Flashing Co., Trenton, N. J. (Gravel stops)
Inland Steel Products Co., Milwaukee, Wis.
La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.
New Delphos Mfg. Co., Delphos, O.
Northwest Metal Products, Inc., Seattle, Wash.
Obdyke, Inc., B. P., Philadelphia, Pa. (Eaves, rakes, gravel stops)
Penn Supply & Metal Corp., Philadelphia, Pa. (Galvanized, copper and aluminum)
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, O.
Reynolds Metals Co., Richmond, Va. (Under eave strip vent)
Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y.
Sioux Steel Co., Sioux Falls, S. D.
Thor Metal Products Co., Inc., Syracuse, N. Y.

#### **ROOF VENTILATORS**

See Ventilators, Roof

# ROOFING, BUILT-UP

See Felt, Roofing

#### ROOPING MACHINES

See Machines, Sheet Metal Working, Pan Forming

# ROOFING, SHEET METAL, ALUMINUM

Aluminum Co., of America, Pittsburgh, Pa.
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Lustrik, Inc., Philadelphia, Pa.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Revere Copper and Brass, Inc., New York, N. Y.
Reynolds Metals Co., Richmond, Va.
Tiffin Art Metal Co., Tiffin, Ohio.

# ROOFING, SHEET METAL, COPPER

American Brass Co., Waterbury, Conn.
Braden Mfg. Co., Inc., Terre Haute, Ind.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Hussey & Co., C. G., Pittsburgh, Pa.
Perkinson, William J., Chicago, Ill.
Revere Copper & Brass Inc., New York, N. Y.

### ROOFING, SHEET METAL, LEAD

Alpha Metals, Inc., Jersey City, N. J.

American Smelting and Refining Co., Federated Metals Div., New York, N. Y.

Chase Brass & Copper Co., Inc., Waterbury, Conn. (Coated copper)

Division Lead Co., Summit, Ill.

Empire Metal Co., Syracuse, N. Y.

Flemm Lead Co., Inc., Long Island City, N. Y.

Kirk & Son, Morris P., Los Angeles, Calif. (copper, iron)

National Lead Co., New York, N. Y.

Revere Copper & Brass Inc., Foil Div., Brooklyn, N. Y.

# ROOFING, SHEET METAL, MONEL

International Nickel Co., Inc., New York, N. Y.

#### ROOFING, SHEET METAL, STEEL, GALVANIZED

Airtherm Mfg. Co., St. Louis, Mo.

Ajax Furnace Fitting Co., Div. Cincinnati Sheet Metal & Roofing Co., Cincinnati, Ohio.

American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio. Armco Steel Corp., Middletown, Ohio.

Berger Div., Republic Steel Corp., Canton, O. Berger Div., Republic Steel Corp., Canton, O. Bethlehem, Pa.

Braden Mfg. Co., Inc., Terre Haute, Ind.

Goldsmith Metal Lath Co., Cincinnati, Ohio.

Granite City Steel Co., Granite City, Ill.

Inland Steel Products Co., Milwaukee, Wis.

International Steel Co., Evansville, Ind.

La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.

Lyon, Conklin & Co., Inc., Baltimore, Md.

Perkinson, William J., Chicago, Ill.

Plasteel Products Corp., Washington, Pa.

Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp., Dover, Ohio.

Republic Steel Corp., Cleveland, Ohio.

Republic Steel Corp., Truscon Div., Youngstown, O. Sioux Steel Co., Sioux Falls, S. D.

Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

Tiffin Art Metal Co., Tiffin, Ohio.

United States Steel Corp., Pittsburgh, Pa.

# ROOFING, SHEET METAL, STEEL, PROTECTIVE COATED

Airtherm Mfg. Co., St. Louis, Mo. Bowman Steel Corp., Pittsburgh, Pa. Plasteel Products Corp., Washington, Pa. Robertson Co., H. H., Pittsburgh, Pa.

# ROOFING, SHEET METAL, STEEL, TERNE PLATE

Berger Div., Republic Steel Corp., Canton, O. Fingles Co., Baltimore, Md.
Follansbee Steel Corp., Follansbee, W. Va.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Sioux Steel Co., Sioux Falls, S. D.
United States Steel Corp., Pittsburgh, Pa.

# ROOFING, SHEET METAL, STEEL, TIN PLATE

Berger Div., Republic Steel Corp., Canton, O. Bethlehem Steel Co., Bethlehem, Pa. Lyon, Conklin & Co., Inc., Baltimore, Md. Perkinson, William J., Chicago, III. Sioux Steel Co., Sioux Falls, S. D. United States Steel Corp., Pittsburgh, Pa.

# ROOFING, SHEET METAL, ZINC

Barnes Metal Products Co., Chicago, Ill.
Empire Metal Co., Syracuse, N. Y.
Illinois Zinc Co., Div. of Hydrometals Inc., Chicago, Ill.
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
Perkinson, William J., Chicago, Ill.

#### ROOF VENTILATOR CURBS

See Curbs, Roof Ventilator

#### **ROOM COOLING UNITS**

See Unitary Air Conditioners, Summer, Self-Contained, Room
Type, Floor Cabinet

#### **ROOM THERMOSTATS**

See Controls, Thermostats

# ROUND DUCT, PREFABRICATED

See Pipe and Fittings, Furnace

# ROUND DUCT SYSTEMS, PACKAGED

See Systems, Heating, Small Pipe

#### **RUST PROTECTION FOR METALS**

See Chemicals, Rust Preventive

# SADDLE ASSEMBLY, HUMIDIFIER WATER LINE

See Valves, Shut-Off, Humidifier Water Line

#### SANDERS

See Buffers, Grinders, Polishers and Sanders

# SAVERS, HEAT

See Recoverers, Heat

# SAW BLADES, ELECTRIC

See Blades, Electric, Saw, Portable

# SAWS AND ATTACHMENTS, ELECTRIC

Aladdin Mfg. Co., Odessa, Mo. Albertson & Co., Inc., Sioux City, Ia. Atkins Saw Div., Borg-Warner Corp., Indianapolis, Ind. Black & Decker Mfg. Co., Towson, Md.
Chicago Pneumatic Tool Co., New York, N. Y.
Cummins Portable Tools Div. of John Oster Mfg. Co., Milwaukee, Wis.
Dreier Bros., Inc., Chicago, Ill.
Kett Tool Co., Cincinnati, O.
Krieg, Inc., Victor J., New York, N. Y.
Mid-States Welder Mfg. Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Modern Mfg. Co., Inc., Willow Grove, Pa.
Price & Rutzebeck, Hayward, Calif.
Producers & Distributors, Inc., Allentown, Pa.
RCS Tool Corp., Bloomington, Ill.
Sawmor Tool & Blade Co., Chicago, Ill.

Skil Corp., Chicago, Ill.
Stanley Electric Tools Div., The Stanley Works, New Britain,
Conn.
Starbuck & Sons, Inc., R. M., Hartford, Conn. (Rotary hole
cutter)

Cutter)
Syntron Co., Homer City, Pa.
Thor Power Tool Co., Aurora, Ill.
Tri-Saw Corp., St. Louis, Mo.
Wen Products Inc., Chicago, Ill.
Williams Tool & Stamping Co., Inc.

Williams Tool & Stamping Co., Inc., Kansas City, Mo.

### SAWS, BAND, SHEET METAL CUTTING

See Machines, Sheet Metal Working, Saws, Band

#### SAWS, CIRCULAR

See Machines, Sheet Metal Working, Saws, Circular

#### SCALE REMOVING CHEMICALS

See Compounds, Cleaning, Condenser and Coll

# SCREENS, SUN REFLECTING

Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

# SCREWS, SHEET METAL

Allmetal Screw Products Co., Inc., Garden City, N. Y.
American Screw Co., Willimantic, Conn.
Anti-Corrosive Metal Products Co., Inc., Castleton-on-Hudson,
N. Y. (Stainless steel)
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Continental Screw Co., New Bedford, Mass.
Duro-Dyne Corp., Farmingdale, N. Y.
Elco Tool & Screw Corp., Rockford, Ill.
Harper Co., H. M., Morton Grove, Ill.
Hart & Cooley Mfg. Co., Holland, Mich.
Holub Industries, Inc., Sycamore, Ill.
Independent Nail & Packing Co., Bridgewater, Mass.
National Lead Co., New York, N. Y.
National Lock Co., Inc., Rockford, Ill.
Paine Co., Addison, Ill.
Parker-Kalon Div. of General American Transportation Corp.,
Clifton, N. J.
Pheoll Mfg. Co., Inc., Chicago, Ill.
Rockford Screw Products, Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Shakeproof Div., Illinois Tool Works, Elgin, Ill.
Southern Screw Co., Statesville, N. C.
Star Sainless Screw Co., Paterson, N. J.
United States Register Co., Battle Creek, Mich.

# SCREWS, SHEET METAL, WELD

Ohio Nut & Bolt Co., Berea, O. Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J. Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.

# SEALANTS, MOLDED (FOR CURTAIN WALL PANELS)

Inland Mfg. Div., General Motors Corp., Dayton, O. Presstite Div., American-Marietta Co., St. Louis, Mo. Products Research Co., Los Angeles, Calif.

### SEALERS, DUCT JOINT

Cain Mfg. Inc., Birmingham, Ala. Fuller Co., H. B., St. Paul, Minn. Minnesota Mining & Mfg. Co. Adhesives, Coatings & Sealers Div., St. Paul, Minn.

#### SEALS FOR REGISTERS

Goodrich Co., B. F., Sponge Products, Shelton, Conn.

#### SEAMER MACHINES

See Machines, Sheet Metal Working, Seaming; Machines, Sheet Metal Working, Grooving

# SETS, DAMPER LINKAGE

Duto-Dyne Corp., Farmingdale, N. Y. Elgen Mfg. Corp., Long Island City, N. Y.

#### SETTING DOWN MACHINES

See Machines, Setting Down

#### SHEARS AND PUNCHES COMBINED

See Punches and Shears Combined

# SHEARS, BENCH, HAND

Bartlett Mfg. Co., Detroit, Mich. Bremil Mfg. Co., Eric, Pa. Whitney Metal Tool Co., Rockford, Ill. Wiss & Sons Co., J., Newark, N. J.

### SHEARS, CIRCLE

See Machines, Sheet Metal Working, Shears, Circle

#### SHEARS, ELECTRIC

See Machines, Sheet Metal Working, Shears, Electric

#### SHEARS, ROTARY

See Machines, Sheet Metal Working, Shears, Rotary, Siltting

### SHEARS, SQUARING

See Machines, Sheet Metal Working, Shears, Squaring

# SHEARS, THROATLESS, LEVER

Beverly Shear Mfg. Co., The, Chicago, Ill. Edwards Mfg. Co., Albert Lea, Minn. Heinrich Tools, Inc., Racine, Wis. Niagara Machine & Tool Works, Buffalo, N. Y. O'Neil-Irwin Mfg. Co., Lake City, Minn. Peck, Stow & Wilcox Co., Southington, Conn. Progressive Tool & Mfg. Co., East Haven, Conn. Viking Shear Co., Erie, Pa. Vyke Mfg. Co., Denver, Colo. Whitney Mfg. Co., W. A., Rockford, Ill. Whitney Metal Tool Co., Rockford, Ill.

# SHEET METAL PANELS FOR CURTAIN WALL

See Panels, Curtain Wall

#### SHEET METAL SCREWS

See Screws, Sheet Metal

# SHEETS, EXPANDED METAL

National Gypsum Co., Buffalo, N. Y. Penn Metal Co., Inc., Boston, Mass. United States Gypsum Co., Chicago, Ill.

# SHEETS, METAL, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa.
American Silver Co., Inc., Flushing, N. Y.
Anaconda Aluminum Co., Louisville, Ky.
Colonial Alloys Co., Philadelphia, Pa. (Anodized)
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Lustrik, Inc., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Olin Mathieson Chemical Corp., New York, N. Y.
Quaker State Metals Co., Lancaster, Pa.
Republic Steel Corp., Cleveland, O.
Revere Copper & Brass, Inc., New York, N. Y.
Reynolds Metals Co., Richmond, Va.
Scovill Mfg. Co., Waterbury, Conn. (Strips)
U.S. Aluminum Siding Corp., Franklin Park, Ill. (Colored siding)

# SHEETS, METAL, CLAD

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless steel)
Aluminum Co. of America, Pittsburgh, Pa. (Aluminum)
American Silver Co., Flushing, N. Y.
Division Lead Co., Summit, Ill. (Lead)
Handy & Harman, New York, N. Y. (Silver clad)
Ingersoll Steel Div., Borg-Warner Corp., Chicago, Ill. (Stainless).
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. (Aluminum)
Lukens Steel Co., Coatesville, Pa. (Nickel, Monel, Inconel & stainless steel)
Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass.
Republic Steel Corp., Cleveland, O. (Steel clad and stainless)

# SHEETS, METAL, COPPER

American Brass Co., Waterbury, Conn.
American Silver Co., Inc., Flushing, N. Y.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Cheney Flashing Co., Trenton, N. J.
Hussey & Co., C. G., Pittsburgh, Pa.
Inland Steel Products Co., Milwaukee, Wis.
Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
Olin Mathieson Chemical Corp., New York, N. Y.
Revere Copper & Brass Inc., New York, N. Y.
Weirton Steel Co., Weirton, W. Va.

### SHEETS, METAL, COPPER, LEAD COATED

American Brass Co., Waterbury, Conn. Chase Brass & Copper Co., Inc., Waterbury, Conn. Hussey & Co., C. G., Pittsburgh, Pa. Revere Copper & Brass Inc., New York, N. Y.

#### SHEETS, METAL, EMBOSSED

Ardmore Products, Inc., Roselle, N. J.
Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper, brass, bronze)
Croname, Inc., Chicago, Ill.
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Lustrik, Inc., Philadelphia, Pa.
Rigidized Metals Corp., Buffalo, N. Y.

#### SHEETS, METAL, LEAD

Alpha Metals, Inc., Jersey City, N. J.

American Smelting and Refining Co., Federated Metals Div.,

New York, N. Y.

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. Division Lead Co., Summit, Ill.
Rmpire Metal Co., Syracuse, N. Y.
Flemm Lead Co., Inc., Long Island City, N. Y.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Kirk & Son, Morris P., Los Angeles, Calif.
National Lead Co., New York, N. Y.
Revere Copper & Brass, Inc., Foil Div., Brooklyn, N. Y.
Weirton Steel Co., Weirton, W. Va.

#### SHEETS, METAL, PROTECTIVE COATED

Arvin Industries, Inc., Columbus, Ind. (Laminated plastic, ornamental)
Bowman Steel Corp., Pittsburgh, Pa. (Asbestos-asphalt)
Erie Enameling Co., Erie, Pa. (Porcelain)
Plasteel Products Corp., Washington, Pa.
Robertson Co., H. H., Pittsburgh, Pa.

# SHEETS, METAL, SPECIAL METAL

Alpha Metals, Inc., Jersey City, N. J. (Tin, antimony)
American Brass Co., Waterbury, Conn. (Copper-silicon alloys)
American Silver Co., Inc., Flushing, N. Y. (Silver)
Cheney Flashing Co., Trenton, N. J. (Copper-zinc alloy)
Colonial Alloys Co., Philadelphia, Pa. (Color-treated)
Division Lead Co., Summit, Ill. (Non-ferrous, cadmium)
Handy & Harman, New York, N. Y. (Silver, gold-silver alloys)
International Nickel Co., Inc., New York, N. Y. (Nickel & nickel
alloys)
Lukens Steel Co., Coatesville, Pa. (Monel & Inconel)
Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill.
(Brass and bronze)
Revere Copper & Brass Inc., New York, N. Y. (Copper alloys)
Youngstown Sheet & Tube Co., Youngstown, O.

# SHEETS, METAL, STEEL, ALUMINUM COATED

Armco Steel Corp., Middletown, Ohio.

# SHEETS, METAL, STEEL, BLACK

Alan Wood Steel Co., Conshohocken, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Mallory-Sharon Metals Corp., Niles, O.
Pittsburgh Steel Co., Pittsburgh, Pa.
Republic Steel Corp., Cleveland, Ohio.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

# SHEETS, METAL, STEEL, COPPER BEARING, GALVANIZED

Armco Steel Corp., Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Inland Steel Co., Chicago, Ill.
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, Ohio.
Republic Steel Corp., Cleveland, Ohio.
Sharon Steel Co., Sharon, Pa.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Weirton Steel Co., Weirton, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

#### SHEETS, METAL, STEEL, CORRUGATED

Armco Steel Corp., Middletown, Ohio.
Berger Div., Republic Steel Corp., Canton, O. (Galvanized)
Bethlehem Steel Co., Bethleham, Pa. (Galv.)
Inland Steel Co., Chicago, Ill. (Galvanized)
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Galvanized)
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, Ohio. (Galv. & black)
Republic Steel Corp., Cleveland, Ohio. (Galv.)
Sharon Steel Corp., Sharon, Pa. (Black and galvanized)
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.

United States Steel Corp., Pittsburgh, Pa. (Galv. & black) Weirton Steel Co., Weirton, W. Va. (Galv.) Wheeling Corrugating Co., Wheeling, W. Va. (Galvanized)

# SHEETS, METAL, STEEL, GALVANIZED

Armoo Steel Corp., Middletown, Ohio.
Berger Div., Republic Steel Corp., Canton, O.
Bethlehem Steel Co., Bethlehem, Pa.
Granite City Steel Co., Granite City, Ill.
Inland Steel Co., Chicago, Ill.
Inland Steel Products Co., Milwaukee, Wis.
International Steel Corp., Pittsburgh, Pa.
Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp.,
Dover, Ohio.
Republic Steel Corp., Cleveland, Ohio.
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Weirton Steel Co., Weirton, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.

# SHEETS, METAL, STEEL, GALVANNEALED

Berger Div., Republic Steel Corp., Canton, O. Bethlehem Steel Co., Bethlehem, Pa. Republic Steel Corp., Cleveland, Ohio. Sharon Steel Corp., Sharon, Pa. United States Steel Corp., Pittsburg, Pa.

# SHEETS, METAL, STEEL, STAINLESS

Allegheny Ludlum Steel Corp., Pittsburgh, Pa.
American Silver Co., Inc., Flushing, N.Y.
Armco Steel Corp., Middletown, Ohio.
Berger Div., Republic Steel Corp., Canton, O.
Crucible Steel Co. of America, Pittsburgh, Pa.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Bastern Stainless Steel Corp., Baltimore, Md.
Ingersoll Steel Div., Borg. Warner Corp., Chicago Ill.
Jessop Steel Co., Washington, Pa.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Jones & Laughlin Steel Corp., Stainless and Strip Div., Detroit,
Mich.
McLouth Steel Corp., Detroit, Mich.
McLouth Steel Corp., Cleveland, Ohio.
Sharon Steel Corp., Sharon, Pa.
Tennessee Coal & Iron Div., U.S. Steel Corp., Fairfield, Ala.
Universal -Cyclops Steel Corp., Bridgeville, Pa.
Washington Steel Corp., Washington, Pa.

# SHEETS, METAL, STEEL, TERNE PLATE

Armoo Steel Corp., Middletown, Ohio.
Berger Div., Republic Steel Corp., Canton, O.
Follansbee Steel Corp., Follansbee, W. Va.
Mallory-Sharon Metals Corp., Niles, O.
Roofing & Supply Co., Chattanooga, Tenn.
Sharon Steel Corp., Sharon, Pa.
Tennessee Coal & Iron Div., U.S. Steel Corp., Fairfield, Ala.
United States Steel Corp., Pittsburgh, Pa.
Weirton Steel Co., Weirton, W. Va.

# SHEETS, METAL, STEEL, TIN PLATE

Berger Div., Republic Steel Corp., Canton, O. Bethlehem Steel Co., Bethlehem, Pa. Granite City Steel Co., Granite City, Ill. Inland Steel Co., Chicago, Ill. Jones & Laughlin Steel Corp., Pittsburgh, Pa. Republic Steel Corp., Cleveland, Ohio. Sharon Steel Corp., Sharon, Pa. United States Steel Corp., Pittsburgh, Pa. Weirton Steel Co., Weirton, W. Va. Youngstown Sheet & Tube Co., Youngstown, Ohio.

#### SHEETS, METAL, TITANIUM

Crucible Steel Co. of America, Pittsburgh, Pa.
Mallory-Sharon Metals Corp., Niles, O.
Republic Steel Corp., Alloy Steel Div., Massillon, O.
Titanium Metals Corp. of America, New York, N. Y.

# SHEETS, METAL, ZINC

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. Empire Metal Co., Syracuse, N. Y. Illinois Zinc Co. Div. of Hydrometals Inc., Chicago, Ill. Kirk & Son, Inc., Morris P., Los Angeles, Calif. Matthiessen & Hegeler Zinc Co., La Salle, Ill.

# SHEETS, NON-METALLIC, OTHER THAN PLASTIC

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Asbestos cement).

Alsynite Co. of America, San Diego, Calif. (Translucent fiberglass)

American Hard Rubber Co., Butler, N. J. (Hard rubber)

Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio. (Asbestos cement, asphalt, plyboard)

Johns-Manville, New York, N. Y. (Asbestos cement)

Keasbey & Mattison Co., Ambler, Pa. (Asbestos)

Nicolet Industries, Inc., Florham Park, N. J. (Asbestos)

Nicolet Industries, Inc., Norristown, Pa. (Asbestos)

Raybestos-Manhattan, Inc., Passaic, N. J. (Rubber)

Ruberoid Co., New York, N. Y. (Asbestos cement; flat & corrugated)

### SHEETS, PLASTIC, FOR DUCTS AND HOODS

American Agile Corp., Bedford, O. (Polyethylene) Argo Plastic Products, Cleveland, O. Atlas Mineral Products Co., Mertztown, Pa. (Rigid polyvinyl chloride) Byers Co., A. M., Pittsburgh, Pa. (PVC)
Campco Div., Chicago Molded Products Corp., Chicago, Ill.
Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works
Co., Cleveland, O. (Polyvinyl chloride)
Firestone Plastics Co., Pottstown, Pa. General Tire & Rubber Co., Akron, O. General Tire & Rubber Co., Marion, Ind. General Tire and Rubber Co., Bolta Products Div., Lawrence, Mass. Goodrich Industrial Products Co., B. F., Koroseal Div., Marietta, O. Haveg Corp., Wilmington, Del. (PVC, polyester glass, phenolic, furan and epoxy resins) Heil Process Equipment Corp., Cleveland, O. Industrial Plastic Fabricators, Inc., Norwood, Mass. (Polyvinyl chloride, polyethylene) Kaykor Industries, Inc., Yardville, N. J. (Rigid polyvinyl chloride) Laminated Sheet Products Corp., Norwood, Mass. Masland Duraleather Co., Philadelphia, Pa. (Polyvinyl chloride) Minnesota Mining and Mfg. Co., Coated Abrasives and Related Products Div., St. Paul, Minn.
Modular Plastic Corp., Detroit, Mich.
Monsanto Chemical Co., St. Louis, Mo. (Polyethylene, vinyl, vinylidene) Plastex Co., Columbus, O.
Rohm & Haas Co., Philadelphia, Pa. (Plexiglas)
Seiberling Rubber Co., Plastics Div., Newcomerstown, O. (PVC) Starline Co., Dayton, O.

#### SHEET STORAGE RACKS

See Racks, Sheet Storage

# SHEETS, TRANSLUCENT

See Panels, Plastic, Translucent Material

### SHELVING, METAL

See Lockers, Metal

#### SHINGLES AND TILE, METAL

Berger Div., Republic Steel Corp., Canton, Ohlo. (Galv.) Fingles Co., Baltimore, Md. (All metals) Labeled Metal Products Corp., Broadview, Ill. (Galvanized steel) Miller & Doing, Brooklyn, N. Y.
Reynolds Metals Co., Richmond, Va. (Aluminum)
Wallace Co., William, Metalbestos Div., Belmont, Calif. (Painted tin and galv.)

# SHUTTERS, DUCT, AUTOMATIC

See Louvers and Shutters, Automatically Controlled

# SHUTTERS, DUCT, MANUAL

See Louvers and Shutters, Manually Controlled

### SHUTTERS, EXTERIOR WALL

See Louvers and Shutters

#### SIGHT GLASSES

See Glasses, Sight for Refrigerant Lines

#### SKYLIGHT LIFTS

See Lifts, Skylight

#### **SKYLIGHTS**

Alsynite Co. of America, San Diego, Calif.
Architectural Plastics, Darien, Conn.
Biersach & Niedermeyer Co., Milwaukee, Wis.
Bowman Steel Corp., Pittsburgh, Pa.
Chemold Co., Santa Monica, Calif. (Fiber glass)
Consolidated General Products, Inc., Houston, Tex (Plastic)
Fingles Co., Baltimore, Md.
Fisher Skylight, Inc., Brooklyn, N. Y.
Gehri Sheet Metal Co., Tacoma, Wash.
General Sheet Metal Works, Inc., Bridgeport, Conn.
Laminated Sheet Products Corp., Norwood, Mass. (Plastic)
Marco Co., East Orange, N. J.
Moeschl-Edwards Corrugating Co., Inc., Cincinnati, Ohio.
Naturalite, Inc., Dallas, Tex. (Plastic)
Overly, Lloyd H., Maryville, Tenn.
Overly Mfg. Co., Greensburg, Pa.
PAM Co., The, Portland, Ore. (Plastic)
Pennsylvania Wire Glass Co., Philadelphia, Pa.
Perkinson, William J., Chicago, Ill.
Resolite Corp., Zelienople, Pa.
Riggin Metal Products, Kankakee, Ill.
Robertson Co., H. H., Pittsburgh, Pa.
Schoedinger, F. O., Columbus, Ohio.
Sioux Steel Co., Sioux Falls, S. D.
Super Steel Products Co., Milwaukee, Wis. (Extruded aluminum)
Tiffin Art Metal Co., Tiffin, Ohio.
Van Noorden Co., E., Boston, Mass.
Vent-O-Lite Co., Chicago, Ill.
Wasco Products, Inc., Cambridge, Mass.

# SLIP-ON PIPE FITTINGS

See Fittings, Pipe, Silp-on

#### SLIP ROLL FORMERS

See Machines, Sheet Metal Working, Slip Roll Forming

# SLITTING MACHINES

See Machines, Sheet Metal Working, Slitting

#### SMOKE GUNS AND CANDLES

See Bombs, Candles and Guns, Smoke, for Testing Air Movement

# SMOKE PIPE

See Pipe and Fittings, Furnace

# SNIPS, HAND

Bartlett Mfg. Co., Detroit, Mich.
Basford Co., H. R., San Francisco, Calif.
Bergman Tool Mfg. Co., Inc., Buffalo, N. Y.
Bingham-Harbrand Corp., Toledo, O.
Boker & Co., Inc., H., New York, N. Y.
Clauss Cutlery Co., Fremont, O.
Compton Shear Co., W. H., Newark, N. J.
Crescent Tool Co., Jamestown, N. Y.
Diamond Tool and Horseshoe Co., Duluth, Minn.
H-P Tool Mfg. Corp., Philadelphia, Pa.
Interstate Drop Forge Co., Special Products Div., Milwaukee, Wis.
Klenk, Inc., Karl, Wilmington, Del.
Malco Products, Minneapolis, Minn.
Mephisto Tool Co., Inc., Hudson, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Proto Tools, Los Angeles, Calif.
Snap-on Tools Corp., Kenosha, Wis.
Stanley Electric Tools Div., The Stanley Works, New Britain,
Conn. Utica Drop Forge & Tool Div. of Kelsey-Hayes Co., Utica, N. Y. Wiss & Sons Co., J., Newark, N. J.

### SNIPS, LEVER

Bartlett Mfg. Co., Detroit, Mich. Whitney Metal Tool Co., Rockford, Ill.

# **SNOW GUARDS**

See Guards, Snow

# SOLDER, ALUMINUM

Air Reduction Sales Co., New York, N. Y.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Schiller Park, Ill. Aluminum Co. of America, Pittsburgh, Pa. American Solder & Flux Co., Philadelphia, Pa.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Empire Metal Co., Syracuse, N. Y.
Farrelloy Co., Philadelphia, Pa.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Loc., Brooklyn, N. Y. Glaser Lead Co., Inc., Brooklyn, N. Y. Johnson Gas Appliance Co., Cedar Rapid, Ia.
Johnson Mfg. Co., Inc., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Lenk Mfg. Co., Franklin, Ky.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
Modern Engineering Co., St. Louis, Mo. Okun Co., Inc., South Ozone Park, N. Y. Ultralloy Corp., Chicago, Ill.

# SOLDER, LEAD-TIN

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., L. B., Schiller Park, Ill. Allen Co., L. B., Schiller Park, III.

Alpha Metals, Inc., Jersey City, N. J.

American Products Corp., Chicago, III.

American Smelting and Refining Co., Federated Metals Div.,

New York, N. Y.

Anchor Metal Co., Inc., Brooklyn, N. Y.

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.

Bensen Co., Inc., Alex R., New Hartford, N. Y. Bohn Aluminum & Brass Corp., Detroit, Mich. Bunker Hill Co., The, Sales & Fabrication Div., San Francisco, Calif Chase Brass & Copper Co., Inc., Waterbury, Conn. Chicago Smelting & Refining Corp., Chicago, Ill. Division Lead Co.. Summit, Ill. Division Lead Co., Summit, III.
Dunton Co., M. W., Providence, R. I.
Empire Metal Co., Syracuse, N. Y.
Farrelloy Co., Philadelphia, Pa.
Flemm Lead Co., Inc., Long Island City, N. Y.
Fluxolder Products Co., Detroit, Mich.
Fusion Engineering, Cleveland, O.
Glaser Lead Co., Inc., Brooklyn, N. Y.
Hercules Chemical Co., Inc., New York, N. Y.
Hussey & Co., C. G., Pittsburgh, Pa.
Johnson Gas Appliance Co., Cedar Rapids, Ia.

Johnson Mfg. Co., Mt. Vernon, Ia.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Kisuer Mfg. Co., Dubuque, Ia.
Lenk Mfg. Co., Franklin, Ky.
London Chemical Co., Melrose Park, Ill.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
New Delphos Mfg. Co., Delphos, O.
Ohmer Co., Geo. H., Dayton, O.
Revere Copper & Brass Inc., Foil Div., Brooklyn, N. Y.
RotoMetais, San Francisco, Calif.
Ruby Chemical Co., Columbus, O.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Tinit Mfg. Co., Inc., Denver, Colo.

# SOLDER, SILVER

All-State Welding Alloys Co., Inc., White Plains, N. Y.
Allen Co., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Silver Co., Inc., Flushing, N. Y.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Empire Metal Co., Syracuse, N. Y.
Engelhard Industries Inc., American Platinum and Silver Div.,
Newack, N. J. Newark, N. J. Newark, N. J.

Fusion Engineering, Cleveland, O.

Handy & Harman, New York, N. Y.

Lukens Metal Co., Thos. F., Philadelphia, Pa.

Metals & Controls, Div. of Texas Instruments Inc., Attleboro,

Mass. (and gold)

Mueller Brass Co., Port Huron, Mich.

Luited Wiles & Supply Core, Providence, R. I. United Wire & Supply Corp., Providence, R. I. Wabash Corp., Chicago, Ill.

# SOLDER, STAINLESS STEEL

All-State Welding Alloys Co., Inc., White Plains, N. Y. Allen Co., L. B., Schiller Park, Ill. Allen Co., L. B., Schiller Park, Ill.
Alpha Metals, Inc., Jersey City, N. J.
American Silver Co., Inc., Flushing, N. Y.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Division Lead Co., Synacuse, N. Y.
Fusion Engineering, Cleveland, O.
Johnson Mfg. Co., Inc., Mt. Vernon, N. Y.
Kester Solder Co., Chicago, Ill.
Kirk & Son, Inc., Morris P., Los Angeles, Calif.
Lukens Metal Co., Thos. F., Philadelphia, Pa.
RotoMetals, San Francisco, Calif.

# SOLDER, ZINC

Allen Co. Inc., L. B., Schiller Park, Ill.
All-State Welding Alloys Co., Inc., White Plains, N. Y.
Anchor Metal Co., Inc., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Division Lead Co., Summit, Ill.
Empire Metal Co., Syracuse, N. Y.
Eutectic Welding Alloys Corp., Flushing, N. Y.
Glaser Lead Co., Inc., Brooklyn, N. Y.

#### SOLDERING COPPERS

See Tools, Hand

#### SOLDERING FLUX

See Flux

# SOLDERING FURNACES

See Furnaces, Soldering

### SOLDERING TORCHES

See Torches, Soldering

#### SOLENOID VALVES

See Valves, Solenold

# SOLVENTS, TANK, FUEL OIL

Ampion Corp., Long Island City, N. Y.
Barclay, Inc., Robert, Chicago, Ill.
Bethendale Corp., Euclid, O.
Columbia Bedford Corp., New York, N. Y.
Coopers Creek Chemical Corp., West Conshohocken, Pa.
Dearborn Chemical Co., Chicago, Ill.
Hasko Utilities Co., New York, N. Y.
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Miller Product Co., Lansing, Mich.
Monsanto Chemical Co., St. Louis, Mo.
Montgomery Chemical Co., St. Louis, Mo.
Mortheat Corp., Cincinnati, O.
Nalco Chemical Co., Chicago, Ill.
Norman Chemical Co., St. Paul, Minn.
North American Mogul Products Co., Cleveland, O.
Oakite Products Inc., New York, N. Y.
Pennsylvania Refining Co., Ohio Div., Cleveland, O.
Petroleum Solvents Corp., New York, N. Y.
Radiator Specialty Co., Charlotte, N. C.
Red Wing Oil Burner Co., Inc., Medford, Mass.
S. O. S. Products Co., Inc., Brooklyn, N. Y.
Schaefer Chemical Products Co., Saginaw, Mich.
Sexauer Mfg. Co., Inc., J. A., New York, N. Y.
Shell Oil Co., New York, N. Y.
Stewart-Hall Chemical Corp., Mt. Vernon, N. Y.

#### SOOT REMOVER

See Remover, Soot

# SOUND LEVEL METERS

See Meters, Sound Level

# SOUND TRAPS

See Absorbers, Sound, Prefabricated
Duct Section, for Noise Control in Duct Systems

#### SPIRAL PIPE FOR HIGH VELOCITY AIR SYSTEMS

See Ducts, Spiral, Welded

### SPLIT SYSTEMS, AIR CONDITIONING

See Unitary Air Conditioners, Summer Split System; Unitary Air Conditioners, Winter, Split System

# SPOT WELDERS

See Welders, Spot

#### SPRAY GUNS

See Guns, Spray

# STAINLESS STEEL SHEETS

See Sheets, Metal, Steel, Stainless

# STAMPINGS, STEEL FURNACE

Ackermann Mfg. Co., Wheeling, W. Va.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Commercial Shearing & Stamping Co., Youngstown, Ohio. (Heads
for furnace domes & crescent radiators)
Detroit Stamping Co., Detroit, Mich.
Mohawk Metal Products Co., Frankfort, N. Y. (Furnace shells
and radiators)
Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Ill.
Sheridan-Gray, Inc., Torrance, Calif.

#### STEEL TUBING

See Tubing, Steel

# STERILIZERS, AIR

Air-Heet Corp., Chicago, Ill.
Air Purification Service, Inc., New York, N. Y.
English Engineering Co., Abilene, Tex.
Germatrol Corp., Pittsburgh, Pa.
Hanovia Lamp Div., Engelhard Industries, Inc., Newark, N. J.
Harvey-Hill, Inc., St. Louis, Mo.
Melco Products, Inc., Minneapolis, Minn.
Ozo Sales Corp., New Haven, Conn.
Sampson Scientific Corp., Chicago, Ill.

### STITCHING MACHINES, METAL

See Machines, Sheet Metal Working, Crimping

#### STOKER CONTROLS

See Controls; Control Systems

# STOKERS, DOMESTIC

Up to 61 lb per Hour

Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Auburn, Ind.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Automatic Solid Fuels Equipment Co., Indianapolis, Ind.
Canton Stoker Corp., Canton, Ohio.
Carpenter Heating & Air Conditioning Co., Cleveland, Ohio.
Cooper Stoker Co., Pittsfield, Mass.
Eddy Stoker Corp., Wheeling, III.
Electric Furnace-Man, Inc., Emmaus, Pa.
Frederick Iron & Steel, Inc., Frederick, Md.
Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.
Gehl Bros. Mfg. Co., West Bend, Wis.
Hall-Neal Furnace Co., Indianapolis, Ind.
Heating Assurance, Inc., Spokane, Wash.
Hershey Motorstokor, Inc., Manheim, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Kol-Master Corp., Oregon, Ill.
Leas Co., H. Leslie, Monona, Iowa.
Loline Steel Boiler Co., Allentown, Pa.
Meyer Furnace Co., Peoria, Ill.
Nelson Bros. & Strom Co., Racine, Wis.
Premium Coal & Oil Co., Cincinnati, Ohio.
Schwab Safe Co., Lafayette, Ind.
Stoker-Ola Mfg. Co., Peoria, Ill.
Stratton & Terstegge Co., Louisville, Ky.
Sun-Fire Stoker Corp., New Albany, Ind.
Tropic-Air Stoker Co., Canton, Ohio.
Will-Burt Co., Orrville, Ohio.
Worley Equipment Inc., Chicago, Ill.

# STOKERS, INDUSTRIAL AND COMMERCIAL

61 lb to 300 lb per Hour

American Engineering Co., Philadelphia, Pa.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Auburn Burner Co., Auburn, Ind.
Auburn Foundry, Inc., Heating Div., Auburn, Ind.
Automatic Solid Fuels Equipment Co., Indianapolis, Ind.
Canton Stoker Corp., Canton, Ohio.
Carpenter Heating & Air Conditioning Co., Cleveland, Ohio.
Cooper Stoker Co., Pittsfield, Mass.
Detroit Stoker Co., Monroe, Mich.
Diamond Castings Co., Inc., Johnsonburg, Pa.
Eddy Stoker Corp., Wheeling, Ill.
Electric Furnace Man, Inc., Emmaus, Pa.
Flynn & Emrich Co., Baltimore, Md.
Frederick Iron & Steel, Inc., Frederick, Md.
Fuel Savers, Inc., Harrisburg, Pa.
Gehl Bros. Mfg. Co., West Bend, Wis.
Hall-Neal Furnace Co., Indianapolis, Ind.

Heating Assurance Inc., Spokane, Wash.
Illinois Iron & Bolt Co., Carpentersville, Hl.
Iron Fireman Mfg. Co., Cleveland, Ohio.
Kol-Master Corp., Oregon, Ill.
Leas Co., H. Leslie, Monona, Iowa.
Meyer Furnace Co., Peoria, Ill.
Nelson Bros. & Strom Co., Racine, Wis.
Ormsby-Osterman Co., St. Louis, Mo.
Premium Coal & Oil Co., Cincinnati, Ohio.
Schwab Safe Co., Lafayette, Ind.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind.,
Stoker-Ola Mfg. Co., Peoria, Ill.
Stratton & Terstegge Co., Louisville, Ky.
Sun-Fire Stoker Corp., New Albany, Ind.
Tropic-Aire Stoker Co., Canton, Ohio.
Whiting Fire Power Products Corp., Superior, Wis.
Whitly Co., Inc., Boston, Mass.
Will-Burt Co., Orrville, Ohio.
Woolley Engineering Co., Detroit, Mich.
Worley Equipment Inc., Chicago, Ill.

#### STORE TYPE AIR CONDITIONERS

See Unitary Air Conditioners, Summer, Self-Contained, Store
Type

#### STOVE REPAIR PARTS

See Parts, Repair, Furnace and Stove

# STRAINERS, REFRIGERATION SYSTEM

See Driers and Strainers, Refrigoration System

### STUDS, WELDING, FOR CURTAIN WALL PANELS

Graham Mfg. Corp., New England Industrial Center, Needham Hts., Mass. K.S.M. Products Inc., Merchantville, N. J. Nelson Stud Welding Div., Gregory Industries, Inc., Lorain, O. Shielded Stud Welding Co., Long Beach, Calif.

### STUD WELDING GUN

See Guns, Stud

# SUMMER COOLING UNITS

See Unitary Air Conditioners, Summer

# SUPPORTS, SHEET, MAGNETIC

Wysong & Miles Co., Greensboro, N. C.

# SURFACE, FIN, ELECTRIC HEATING ELEMENT

Electromode Div. of Commercial Controls Corp., Rochester, N. Y. Heat Controller, Inc., Jackson, Mich. Industrial Engineering and Equipment Co., Brentwood, Mo. Muncie Gear Works, Cordele, Ga. Tuttle & Co., H. W., Tecumseh, Mich. Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc., Danvers, Mass.

Wilson Electric Furnaces, Rossville, Ga.

#### SWITCHES FOR CONTROLLING SHEET METAL WORKING EQUIPMENT

See Control Switches for Sheet Metal Equipment

# SWITCHES, MAGNETIC, MANUAL, TIME

See Controls

### SYSTEMS, FUEL OIL PUMPING

For Overhead Unit Heaters and Forneces

Barclay, Inc., Robert, Chicago, Ill. Sundstrand Hydraulics, Rockford, Ill. Tuthill Pump Co., Chicago, Ill. Webster Electric Co., Racine, Wis.

# SYSTEMS, HEATING, SMALL PIPE

Consisting of furnace, plenum chamber, takeoff fittings, boots, elbows, small pipe

Adelta Mfg. Co., Philadelphia, Pa. Char-Gale Mfg. Co., Anoka, Minn. Coleman Co., Inc., Wichita, Kans. Hawthorne Mfg. Corp., Hawthorne, Pa. Henry Furnace Co., Medina, O. Inland Steel Products Co., Milwaukee, Wis. J & J Sheet Metal Co., Van Dyke, Mich. Lennox Industries Inc., Marshalltown, Iowa. Majestic Co., Inc., Huntington, Ind. Premier Furnace Co., Dowagiac, Mich. Ralph Mfg. Co., Inc., Wadsworth, O. Temco Inc., Nashville, Tenn. Williamson Co., The, Cincinnati, O.

# SYSTEMS, HEATING AND VENTILATING, GAS OR OIL FIRED, WARM AIR, FOR SCHOOL CLASSROOMS

Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O. Lennox Industries Inc., Marshalltown, Ia. Norman Products Co., Columbus, O. Williams Furnace Co., Buena Park, Calif.

# SYSTEMS, VENTILATING, FOR KITCHENS AND BATHROOMS

Consisting of duct, hoods, grilles, exhaust fans and back draft dampers

Lau Blower Co., Dayton, O.

### TANK GAGES, FUEL OIL

See Gages, Tank, Fuel Oll

# TANK PATCHING MATERIALS

See Materials, Patching, Tank

#### TANK SOLVENTS

See Solvents, Tank, Fuel Oll

# TANKS, FUEL OIL, ACCESSORIES

Air-Maze Corp., Cleveland, O. (Tank vent flame arresters)
Airtherm Mfg. Co., St. Louis, Mo.
Bearlee Products Co., Green Bay, Wis. (Vent caps)
Chicago Tank Lining Inc., Chicago, Ill. (Patching materials)
Furblo Co., Hermansville, Mich. (Stand)
Gasoilair Equipment Co., New Haven, Conn.
Guardian Products Corp., Valve Div., Michigan City, Ind. (Valve)
Harvey, Inc., Sid, Valley Stream, N. Y. (Patching materials)
Johns Mfg. Co., Middlesex, N. J. (Sludge and corrosion controller)
Mel-Gauge Co., New Haven, Conn. (Fittings and bushings)
Morse-Smith-Morse Co., Watertown, Mass. (Vent caps and valves)
Oil Equipment Mfg. Co., New Haven, Conn. (Oil storage tank fittings, vent caps, fill boxes)
Rockford Brass Works, Rockford, Ill.
Scully Signal Co., Melrose, Mass. (Vent cap, fill spout)
Simplex Distributors, Brooklyn, N. Y. (Fill boxes, vent caps, curb boxes)
Universal Valve Co., Elizabeth, N. J. (Fittings, tank valves and bushings)

# TANKS, STORAGE, FUEL

Airtherm Mfg. Co., St. Louis, Mo.
Black, Sivalls & Bryson, Inc., Kansas City, Mo.
Furblo Co., Hermansville, Mich.
Kaustine Furnace & Tank Corp., Perry, N.Y.
Koven & Bro., Inc., L. O., Jersey City, N. J.
Mohawk Metal Products Co., Inc., Frankfort, N. Y. Mohawk Metal Products Co., Inc., Frankford Nooter Corp., St Louis, Mo. Pennsylvania Furnace & Iron Co., Warren, Pa. Rheem Mfg. Co., New York, N. Y. Snappy Inc., Detroit Lakes, Minn.

### TAPE, DUCT, ADHESIVE

For Sealing Joints

Adhesive Tape Corp., Brooklyn, N. Y.

American Tape Co., Detroit, Mich.

Arno Adhesive Tapes, Inc., Michigan City, Ind. Cain Mfg. Inc., Birmingham, Ala. Cain Mig. Inc., Birmingham, Ala.
Continental Tapes, Cayce, S. C.
Duro-Dyne Corp., Farmingdale, N. Y.
Dutch Brand Div., Johns-Manville Corp., Chicago, Ill.
Elgen Mig. Corp., Long Island City, N. Y.
Hampton Mig. Co., Industrial Tape Div., New Rochelle, N. Y.
Kendall Co., The, Chicago, Ill.
Mystik Adhesive Products Co., Chicago, Ill.
Permacel, New Brunswick, N. J.
Products Research Co.. Los Angeles, Calif.
Wilson, Inc., Grant, Chicago, Ill.

See Angles, Bars, Beams, Channels, and Tees

# TEMPERATURE CONTROLS

See Controls; Control Systems

#### TEMPERATURE RECORDERS

See Recorders, Temperature

### **TESTERS, SMOKE**

Bacharach Industrial Instrument Co., Pittsburgh, Pa. Dwyer Mfg. Co., F. W., Michigan City, Ind. Hill & Co., E. Vernon, Lake Geneva, Wis.

# TESTING EQUIPMENT, AIR FLOW

See Bombs, Candles and Guns, Smoke

# THERMOMETERS, INDICATING

Airguide Instrument Co., Chicago, Ill. Bacharach Industrial Instrument Co., Pittsburgh, Pa. Bailey Meter Co., Cleveland, Ohio, Barber-Colman Co., Rockford, Ill.
Bristol Co., Waterbury, Conn.
Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J.
Defender Instrument & Regulator Co., Boody, Ill.
Dickson Co., Chicago, Ill.
Foxboro Co., Foxboro, Mass.
G. M. Mfg. Co., New York, N. Y.
General Scientific Equipment Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
H-B Instrument Co., Philadelphia, Pa.
Hill & Co., E. Vernon, Lake Geneva, Wis.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., Stratford, Conn.
Marsh Corp., Jas. P., Skokie, Ill.
Marshalltown Mfg. Co., Marshalltown, Iowa.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Moeller Instrument Co., Richmond Hill, N. Y.
Palmer Thermometers, Inc., Cincinnati, Ohio. Barber-Colman Co., Rockford, Ill. Palmer Thermometers, Inc., Cincinnati, Ohio. Philadelphia Thermometer Co., Philadelphia, Pa. Powers Regulator Co., Skokie, Ill.

Precision Thermometer & Instrument Co., Philadelphia, Pa. Rochester Mfg. Co., Inc., Rochester, N. Y.
Simpson Electric Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
United States Gauge Div., American Machine & Metals Inc.,
New York, N. Y. Weksler Instruments Corp., Union, N. J.
Weksler Instruments Corp., Freeport, N. Y.
Wheelco Instruments Div., Barber Colman Co., Rockford. Ill.

#### THERMOSTATS

See Controls, Thermostats

#### THROUGH WALL FLASHINGS

See Flashings, Through Wall

#### TIME SWITCHES

See Controls, Switches, Time

# TIMERS, WELDING

Automatic Timing & Controls, Inc., King of Prussia, Pa. General Electric Co., Apparatus Sales Div., Schenectady, N. Y. Peer, Inc., Benton Harbor, Mich. Photoswitch Div., Electronics Corp. of America, Cambridge, Mass Sciaky Bros., Inc., Chicago, Ill.
Westinghouse Electric Corp., Pittsburgh, Pa.

#### TINNERS FIREPOTS

See Furnaces, Soldering

#### TINNING

See Baths, Tinning

# TIPS, DAMPER

See Clips and Tips, Damper

# TOOLS, GUTTER, MANUAL

Hughes Mfg. Co., Norfolk, Va.

mers, tinners hammer)

Adre Co.,

# TOOLS, HAND

The, Hales Corners, Wis. (Electric contact

burnisher) Airserco Mfg. Co., Pittsburgh, Pa. (Instruments for diagnosing malfunctions in refrigeration equipment) Air-Speed Tool Co., Los Angeles, Calif. (Pneumatic file & saw)
Allen, H. D., Los Angeles, Calif., (Template transfer punches)
American Electrical Heater Co., Detroit, Mich. (Soldering irons)
American Saw & Mfg. Co., Inc., Springfield, Mass. (Hack saws) Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. (Refrigerating system evacuating pump)
Atkins Saw Div., Borg-Warner Corp., Indianapolis, Ind. (Hack saws)
Basford Co., H. R., San Francisco, Calif. (Pliers, wrenches)
Bell Machine Specialties, Trevose, Pa. (Manual lock seaming
hammer assembly)
Bergman Tool Mfg. Co., Inc., Buffalo, N. Y. (Hand shears)
Black & Decker Mfg. Co., Towson, Md. (Automatic screw
driver, portable electric tapper, portable jig saw)
Boker & Co., Inc., New York, N. Y. (Double cutting pipe snips, pliers and wrenches)
Bonney Forge & Tool Works, Alliance, O. (Wrenches, screw drivers, flaring sets, pliers and socket sets)
Bostitch, East Greenwich, R. I. (Stapling tacker for insulation, stapling hammer) Brush Nail Expansion Bolt Co., Greenwich, Conn. (Masonry Brush Nall Expansion Bott Co., Greaters, Cambridge and Co., Los Angeles, Calif. (Adhesive corner pads)
C W R Mfg. Co., Morro Bay, Calif. (Crimpers, clamps)
Champion DeArment Tool Co., Meadville, Pa. (Pliers, rivet hamChicago Pneumatic Tool Co., New York, N. Y. (Pneumatically operated files)

Olemson Bros., Inc., Middletown, N. Y. (Hack Saws)
Columbian Vise & Mfg. Co., Cleveland, O. (Vise, levels)
Crescent Tool Co., Jamestown, N. Y. (Scratch awls, pliers,

screw drivers, wrenches)

Dalsin Metal Products, Minneapolis, Minn. (Ladder jack)
Damascus Steel Products Corp., Rockford, Ill. (Punches, chisels, scratch awl, screw drivers, star drills, nippers, etc.)

Davis & Son Machine Works, Los Angeles, Calif. (Clip &

button punch) Dayton Rogers Mfg. Co., Minneapolis, Minn. (Edge scriber)
Desmond-Stephan Mfg. Co., Urbana, O. (Sheet metal worker's

Visc.)
Detroit Stamping Co., Detroit, Mich. (Toggle clamps)
Diamond Tool and Horseshoe Co., Duluth, Minn. (Pliers,

wrenches)

Division Lead Co., Summit, Ill. (Lead hammers)
Dot-N-Dasher, Creskill, N. J. (Drafting template)
Downs Crane & Hoist Co., Los Angeles, Calif. (Sheet metal bundle lifter) Duro-Dyne Corp., Farmingdale, N. Y. (File and solder iron

handles)

handles)
Duro Metal Products Co., Chicago, Ill. (Wrenches)
Elgen Mfg. Corp., Long Island City, N. Y. (Portable hand brake)
Engesser & Co., William L., El Monte, Calif. (Tube flaring tool)

tool)

Eriez Mfg. Co., Erie, Pa. (Fanner magnet)

Estwing Mfg. Co., Rockford, Ill. (Tinners hammers)

Fairmount Tool & Forging Inc., Cleveland, Ohio. (Calking irons, file holders, pliers, solder paddle, tubing cutters, flaring tools, gear pullers, screw drivers, wrenches, hammers)

Fallsington Mfg. Co., Fallsington, Pa. (Clip punch, drive cleat

notcher) Fastening Devices, Inc., Brooklyn, N. Y. (Hand driven stud

drivers) Fastway Fasteners, Inc., Lorain, O. (Stud driver for masonry

and steel) Garland Mfg. Co., Saco, Maine (Hammers and mallets)
General Electric Co., Metallurgical Products Dept., Detroit,
Mich. (Concrete drills)

Grand Specilaties Co., Chicago, Ill. (C-clamp)
Greist Mfg. Co., New Haven, Conn. (Scriber)
H-P Tool Mfg. Corp., Philadelphia, Pa. (Punches, chisels, edge

Halbee Products Co., Parma, Mich. (Hack saw)
Hamlin Co., Inc., San Francisco, Calif. (Masonry drills)
Hexdall Co., A. M., Morris, Ill. (Seam openers & lock hammers)
Hilti Rapid Fastening Systems, Inc., Stamford, Conn. (Stud
driver for masonry and steel)

driver for masonry and steel)
Hub Specialty Co., Reading, Mass. (Awl).
Hussey & Co., C. G., Pittsburgh, Pa. (Soldering coppers)
Ideal Industries, Inc., Sycamore, Ill. (Impact masonry drill)
Imperial Brass Mfg. Co., Chicago, Ill. (Tube cutters; tube benders; tube flaring, reaming and pinchoff tools)
Insto-Gas Corp., Detroit, Mich. (Gas-fired soldering irons)
International Staple and Machine Co., Materials Handling
Div., Herrin, Ill. (Vacuum sheet lifter)
Interstate Drop Forge Co., Special Products Div., Milwaukee,
Wis (Button presses, songezer tongs)

Wis. (Button presses, squeezer tongs)
Interstate Sales Co., New York, N. Y. (Angle meters & center

finders) Johnson Ladder Shoe Co., Eau Claire, Wis. (Rubber ladder shoes,

vise jaws, rubber mallets)

Kennametal Inc., Latrobe, Pa. (Masonry & rock drill bits)

Kennedy Products Co., Phoenix, Ariz. (Bronze, fiber, rubber and aluminum vise jaw plates)

and aluminum vise jaw plates)
Klenk, Inc., Karl, Wilmington, Del. (Crimper)
Lapeer Mfg. Co., Detroit, Mich. (Vise wrench, toggle clamps)
Leslie Creations, Lafayette Hill, Pa. (Portable drawing board)
Levow, Inc., David, South Hackensack, N. J. (Portable saw gun,
sheet metal clamp, hoisting hook, drill saw attachment)
Lovinggood Tool Co., Charleston Heights, S. C. (Tap-in seamer)
Lovinggood Tool Co., Saginaw, Mich. (Rulper, tapes, Agrible, de

Lufkin Rule Co., Saginaw, Mich. (Rules: tapes, flexible, cir-cumference, etc.; center punches, scribers, etc.)

Lyon Metal Products, Inc., Aurora, Ill. (Stock cart, tool stand, tool boxes & work benches)

Madden Brass Products Co., Aurora, Ill. (Tube working tools, refrigerant charging manifold)

Malco Products, Minneapolis, Minn. (Pipe crimpers, duct holder clamps, seamers, notchers, snap lock punches, scratch awls, riveting and setting hammer, hack saw frames and blades, folding tools, screw drivers, compass saws and blades)

Markal Co., Chicago, Ill. (Sheet marking crayon)
Markwell Mfg. Co., Inc., New York, N. Y. (Insulation stapler)
Mephisto Tool Co., Inc., Hudson, N. Y. (Caulking irons, hack saws, hammers, pliers, screw drivers, chisels)

Merchandising & Mfg. Associates, Inc., Lancaster, Pa. (Cutters, shrinkers, stretchers, aluminum file handles) Metalcraft Engineering Co., Lincoln, Nebr. (Drive cleat edge

Miller & Associates, David, Beverly Hills, Calif. (Portable drafting set)

Millers Falls Co., Greenfield, Mass, (Hole saws, saw attachment)

Milwaukee Electric Tool Corp., Milwaukee, Wis. (Hack saw) Misener Mfg. Co., Inc., Syracuse, N. Y. (Hole saws) Modern Mfg. Co. Inc., Willow Grove, Pa. (Portable electric punch)

Momar Industries, Chicago, Ill. (Blueprint racks)
Montgomery Specialty Co., Inc., Paterson, N. J. (Gutter clamp)
Moser & Son Míg. Co., Bluffton, Ind. (Spouting tripods)
Multifinish Míg. Co., Detroit, Mich. (Magnetic floor sweepers,
magnetic lifter)

New England Carbide Tool Co., Inc., Medford, Mass. (Mason-

Niagara Machine & Tool Works, Buffalo, N. Y. (Stakes, ham-Niagara Machine & 1001 Works, Bulfalo, N. Y. (Stakes, Bammers, groovers, pipe crimpers, hollow punches, etc.)

Nobur Mfg. Co., North Hollywood, Calif. (Deburring tool)

Omark Industries, Inc., Portland, Ore. (Masonry stud driver)

Osborne & Co., C. S., Harrison, N. J. (Rivet sets)

Overland Sheet Metal Co., Overland, Mo. (Duct cincher, seam opener, metal marker, brake mold)

Owens Co., H., Culver City, Calif. (Pattern developer)
Packham Crimper Co., Mechanics-Burgh, Ohio. (Crimping tongs)

Parker Fittings & Hose Div., Parker-Hannafin Corp., Cleveland, O. (Flaring sets, tube cutters, tube benders)
Peck, Stow & Wilcox Co., Southington, Conn. (Hammers, awls,

rivet sets, groovers, wing dividers, circumference rules, ferrule formers, stakes)

formers, stakes)
Pennsylvania Saw Corp. Newark, N. J. (Hand saw set)
Petersen Mfg. Co., Inc., DeWitt, Nebr. (Clamps)
Pioneer Tool Co., Racine, Wis. (Pipe crimpers, trammels, extension benches, gutter clamps, adjustable saw handles, scratch awls, ladder brackets)

awis, faulte Diackets)
Porter-Cable Machine Co., Syracuse, N. Y. (Hand saw)
Power-Line Sales, Inc., Detroit, Mich. (Stapler)
Proto Tools, Los Angeles, Calif. (Screw drivers, wrenches, sockets, hammers, pliers, chisels)

Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp., New Haven, Conn. (Powder-actuated

masonry and steel screw driver)

Rapidesign, Inc., Glendale, Calif. (Templates)

Rawlplug Co., Inc., The, New Rochelle, N. Y. (Masonry drills hammer attachment for drills)

Reiner & Campbell Co., Inc., Newark, N. J. (Dividers & notchers, seam tongs, clip punches)
Relton Corp., Pasadena, Calif. (Concrete drill bits)

Relton Corp., Pasadena, Calif. (Concrete drill bits)
Reuter Míg. Co., Menomonee Falls, Wis. (Duct hanger)
Rolas Products Corp., Newark, N. J. (Ladder leveler)
Rotary Concrete Drill Co., Pasadena, Calif. (Drill bits)
Safety Nail Driver Corp., Clifton, N. J. (Masonry nail driver)
Samson Drill Co., Bronx, N. Y. (Drill bits)
Schaefer Brush Míg. Co., Milwaukee, Wis. (Steel brushes, pipe, tube and fitting cleaning brushes)
Schild Míg. Co., Beaver Dam, Wis. (Sheet metal cutter)
Scotco Products Co., Beverly, Mass. (Soldering gun)
Skil Corporation, Chicago, Ill. (Portable power tools)
Sheridan-Gray, Inc., Palos Verdes Estates, Calif.
Simonds Saw & Steel Co., Fitchburg, Mass. (Metal files)
Snap-on Tools Corp., Kenosha, Wis. (Wrenches, hammers, pliers)
Stanley Electric Tools Div., The Stanley Works, New Britain,
Conn. (Portable electric shear, hammers, squares, chisels, etc.)
Star Expansion Industries Corp., Mountainville, N. Y. (Stud drivers)

ers)

Stern Bros. Plumbing Supply Co., Cleveland, O.
Stortz & Son, Inc., John, Philadeiphia, Pa. (Hammer, punches, chisels, rivet sets)
Tel-Tru Mfg. Co., Rochester, N. Y. (Thermometer)
Thompson & Sons Co., Henry G., New Haven, Conn. (Hole

Thompson & Sons Co., Archi, S., saws, hack saws, hack saws)
Thor Power Tool Co., Aurora, Ill. (Saw attachment)
Time Saver Tools, Inc., Mundelein, Ill. (Drill bits)
Topflight Corp., York, Pa. (Jigs, riveters, dimplers, rivet remov-Topflight Corp., York, Pa. (Jigs, riveters, dimplers, rivet removers, scribing discs)
Truco Masonry Drilling Div., Wheel Trueing Co., Detroit,

Mich. (Concrete drill) Union Steel Chester Corp., LeRoy, N. Y. (Metal tool boxes and chests)

U.S. Expansion Bolt Co., York, Pa. (Manual stud driver for masonry and steel)

Utica Drop Forge & Tool Div. of Kelsey-Hayes Co., Utica, N. Y. (Non-ferrous lap-welding dies)

Vac-U-Mation Div., F. J. Littell Machine Co., Chicago, Ill. (Vacuum sheet lifter)

Vital Products Mfg. Co., Cleveland, Ohio. (Caulking guns & cart-

Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc.,

Danvers, Mass. (Electric solder pots)

Wassco Electric Products Corp., St. Petersburg, Fla. (Electric soldering tools for copper tubing joints)

Weatherhead Co., Ft. Wayne Div., Fort Wayne, Ind. (Tube flaring sets, swaging tools, tube cutters, tube benders)

Wedgelock Corp., North Hollywood, Calif. (Jig fasteners,

clamps, sheet metal fasteners)
Whipple Sheet Metal Works, Inc., Lansing, Mich. (Clamps)
Whitney Mfg. Co., W. A., Rockford, Ill. (Riveting and setting hammers, portable lever punches, punches and dies, shears,

notching punches)
Whitney Metal Tool Co., Rockford, Ill. (Aircraft rivet squeezers, hand seamers, rivet sets, hand crimpers, awls)

Wilder Mfg. Co., Inc., Salinas, Calif. (Punches)
Williams and Co., J. H., Buffalo, N. Y. (Wrenches)
Williams Mfg. Co., Memphis, Tenn. (Tube flaring sets, tube benders, tube cutters and tube swedgers)
Wyzenbeek & Staff, Inc., Chicago, Ill. (Hole cutters, saw attach-

ments) Yeats Appliance Dolly Sales Co., Milwaukee, Wis. (Hand truck)

#### TOOLS, OIL BURNER

Boston Machine Works, Lynn, Mass. (Nozzle extractor) Delavan Mfg. Co., West Des Moines, Ia. (Nozzle tool kits, inspection mirror, nozzle changer, serviceman's kit, flame inspection mirror) Eddington Metal Specialty Co., Eddington, Pa. (Inspection mirror)
Jay-Zee Mfg. Co., Chicago Ridge, Ill. (Oil pump tester)
Scully Signal Co., Melrose, Mass. (Electrode gage setter, burner and control tester) Shepard, Herman, Newton Upper Falls, Mass. (Firing rate adjustment meter) Simplex Distributors, Brooklyn, N. Y. (Fill box wrenches)

### TOOLS, ROOFERS'

Adams Co., Dubuque, Iowa. (Scaffold brackets)
Aeroil Products Co., Inc., South Hackensack, N. J. (Melting kettles, hoists, buckets & accessories) Ajax Building Bracket Co., Cleveland, Ohio. (Brackets) Belden Machine Co., New Haven, Conn. (Hammers rippers & Frey & Co., Frank P., Chicago, Ill. (All kinds)
Hauck Mfg. Co., Brooklyn, N. Y. (Kettles)
Johnson Ladder Shoe Co., Eau Claire, Wis. (Rubber knee pads)
Levow, Inc., David, South Hackensack, N. J. (Roof scrapers, metal mop handle) Littleford Bros., Inc., Cincinnati, Ohio. (Roofing kettles)
Matt Coil-Less Burner Co., Chicago, Ill. (Buckets, mops, kettles, etc.) Moser & Son Mfg. Co., Bluffton, Ind. (Ladder jacks) Niagara Machine & Tool Works, Buffalo, N. Y. (Double seamers) Owens-Corning Fiberglas Corp., New York, N. Y. (Fiberglas mop yarn)
Peck, Stow & Wilcox Co., Southington, Conn. (Seamers, tongs, etc.) Rose Mg. Co., Denver, Colo. (Ladder shoes)
Stortz & Son, Inc., John, Philadelphia, Pa. (Tongs, seamers, scrapers, jointers, punches, hammers, rippers, stakes)

# TOPS, CHIMNEY

See Caps and Tops, Chimney

# TORCHES, BRAZING, CUTTING, WELDING AND **OXY-ACETYLENE**

Aeroil Products Co., Inc., South Hackensack, N. J. Air Products, Inc., Allentown, Pa. Air Reduction Sales Co., New York, N. Y. American Products Corp., Chicago, Ill. American Products Corp., Chicago, III.
Bastian-Blessing Co., Chicago, III.
Black Mfg. Co., Baltimore, Md.
Chemetron Corp., Chicago, III.
Dockson Corp., Detroit, Mich.
General Dynamics Corp., Liquid Carbonic Div., Chicago, III.
Goss Gss, Inc., Glenshaw, Pa. Harris Calorific Co., Cleveland, Ohio.
Ideas, Inc., Laramie, Wyo. (Circle and hole cutting attachment)
K-G Equipment Co. (Inc.), Allentown, Pa.
Lincoln Electric Co., Cleveland, O. Lincoln Electric Co., Cleveland, O.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
Mid-States Welder Mfg. Co., Chicago, Ill.
Minn-Kota Foundry & Mfg. Co., Moorhead, Minn.
Modern Engineering Co., St. Louis, Mo.
National Welding Equipment Co., San Francisco, Calif.
Ransome Toych & Burger Co. Expensi National Welding Equipment Co., San Francisco, Calif.
Ransome Torch & Burner Co., Emeryville, Calif.
Reiner & Campbell Co., Inc., Newark, N. J.
Sight Feed Generator Co., W. Alexandria, O.
Smith Welding Equipment Corp., Minneapolis, Minn.
Victor Equipment Co., San Francisco, Calif. Weldit, Inc., Detroit, Mich.

### TORCHES, SOLDERING

Acet-A-Tips Co., Chicago, Ill. Air Reduction Sales Co., New York, N. Y. Bastian-Blessing Co., Chicago, Ill. Bernz Co., Otto, Rochester, N. Y. Chemetron Corp., Chicago, Ill. Clayton & Lambert Mfg. Co., Louisville, Ky. Dockson Corp., Detroit, Mich. General Dynamics Corp., Liquid Carbonic Div., Chicago, Ill. Goss Gas, Inc., Glenshaw, Pa. Harris Calorific Co., Cleveland, Ohio. Harris Calorific Co., Cleveland, Ohio.
Hones, Inc., Charles A., Baldwin, N. Y. (Gas)
Insto-Gas Corp., Detroit, Mich.
Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Kuehn Tool Co., Roselle, N. J.
Lenk Mfg. Co., Franklin, Ky.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Marquette Mfg. Co., Inc., Minneapolis, Minn.
Minn-Kota Foundry & Mfg. Co., Moorhead, Minn.
Modern Engineering Co., St. Louis, Mo.
Mutual Liquid Gas & Equipment Co., Gardena Calif Mutual Liquid Gas & Equipment Co., Gardena, Calif.
National Welding Equipment Co., San Francisco, Calif.
Prepo Corp., Edgerton, Wis.
Ransome Torch & Burner Co., Emeryville, Calif. Ransome Torch & Burner Co., Emeryville, Calif. Reiner & Campbell Co., Inc., Newark, N. J. Reliable Mach. & Mfg. Co., Inc., Cedar Rapids, Ia. Sanders, J. A., Fulton, N. Y. Sight Feed Generator Co., West Alexandria, Ohio. Tinit Mfg. Co., Inc., Denver, Colo. Turner Corp., Sycamore, Ill. Unique Mfg. Co., Inc., Chicago, Ill. Weldit, Inc., Detroit, Mich.

# TOWERS, COOLING, ATMOSPHERIC, RESIDENTIAL

Binks Mfg. Co., Chicago, Ill. Fluor Products Co., Div. of the Fluor Corp., Ltd., Air Conditioning & Refrigeration Cooling Tower Div., Santa Rosa, Calif. Higgins Metal Products Co., The, Swanton, O. Lilie-Hoffman Cooling Towers, Inc., St. Louis, Mo. Marley Co., The, Kansas City, Mo. Peerless Products Div., United Cooling Towers, Inc., North Little Rock, Ark.
Phillips Cooling Tower Co., Inc., Brooklyn, N. Y.
Thermal Agency, Houston, Tex.
TOT Towers Co., Houston, Tex.
Toungate & Coats, Austin, Tex.

# TOWERS, COOLING, MECHANICAL DRAFT, RESIDENTIAL

Acme Industries Inc., Jackson, Mich. American Coils Co., Farmingdale, N. J. Arizona Maintenance Co., Tucson, Ariz. Arkla Air Conditioning Corp., Little Rock, Ark. Baldwin-Ward Mfg. Co., Ottawa, Kans.
Baltimore Aircoil Co., Inc., Baltimore, Md.
Binks Mfg. Co., Chicago, Ill.
Curtis Mfg. Co., Chrigeration Div., St. Louis, Mo.
Deansteel Products, San Antonio, Tex. Drayer-Hanson, Div. of National-U. S. Radiator Corp., Los Angeles, Calif. Dunham-Bush, Inc., West Hartford, Conn.
Fluor Products Co., Div. of the Fluor Corp., Ltd., Air Conditioning & Refrigeration Cooling Tower Div., Santa Rosa, Calif. Goodfellow Co., Inc., E. D., Memphis, Tenn.

Governair Corp., Oklahoma City, Okla.

Halstead & Mitchell, Pittaburgh, Pa.

Havens Cooling Towers, Div. of Havens Structural Steel Co.,

Kansas City, Mo.

Higgins Metal Products Co., The, Swanton, O.

KVS Industries Inc., North Sacramento, Calif.

Kauffman Air Conditioning Corp., St. Louis, Mo.

Kannard Corp., St. Louis, Mo.

Larkin Coils, Inc., Atlanta, Ga.

Lilie-Hoffman Cooling Towers, Inc., St. Louis, Mo.

Lilie-Hoffman Cooling Towers, Inc., Swarthmore, Pa.

Marley Co., The, Kansas City, Mo.

Marlo Coil Co., St. Louis, Mo.

Marlo Coil Co., St. Louis, Mo.

Marlo Coil Co., St. Louis, Mo.

Morris Sheet Metal Works, Columbus, O.

National-U.S. Radiator Corp., Johnstown, Pa.

Niagara Products Co., Phoenix, Ariz.

Peerless Products Div., United Cooling Towers, Inc., North Little Rock, Ark.

Phillips Cooling Tower Co., Inc., Brooklyn, N. Y.

Recold Corp., Los Angeles, Calif.

Smithco Engineering, Inc., Cooling Tower Div., Houston, Tex.
TOT Towers Co., Houston, Tex.

Tedco Cooling Towers Div., Engineering & Development Co., Inc., St. Louis, Mo.

# TRANSFORMERS, BOOST AND BUCK (FOR VOLTAGE CONTROL)

Acme Electric Corp., Cuba, N. Y. Ballastran Corp., Ft. Wayne, Ind. Dongan Electric Mfg. Co., Detroit, Mich. Jefferson Electric Co., Bellwood, Ill.

# TRANSFORMERS, IGNITION

Burn-Rite Products Co., Yonkers, N. Y.
Dongan Electric Mfg. Co., Detroit, Mich.
Dormeyer Industries, Chicago, Ill.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N.Y.
Harvey, Inc., Sid, Valley Stream, N. Y.
HomEase Products Div. of Bogue Electric Mfg. Co., Paterson,
N. J.
Jefferson Electric Co., Bellwood, Ill.
Service and Supply Co., Appleton, Wis.
Super Electric Products Corp., Jersey City, N. J.
Thermador Electrical Mfg. Co., Div. of Norris-Thermador
Corp., Los Angeles, Calif.
Thermolok Mfg. Co., Inc., Franklin Sq., L.I., N.Y
Union Electric & Mfg. Co., Jersey City, N. J.
Webster Electric Co., Racine, Wis.

# TRANSFORMERS, LOW VOLTAGE

Acme Electric Corp., Cuba, N. Y.
Ballastran Corp., Ft. Wayne, Ind.
Barber-Colman Co., Rockford, Ill.
Crown Controls Co., Inc., New Bremen, Ohio.
Detroit Controls Div. of American-Standard, Detroit, Mich.
Dongan Electric Mfg. Co., Detroit, Mich.
Dormeyer Industries, Chicago, Ill.
Eisler Engineering Co., Newark, N. J.
General Controls Co., Glendale, Calif.
General Electric Co., Apparatus Sales Div., Schenectady, N. Y.
Jefferson Electric Co., Bellwood, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
NuTone, Inc., Cincinnati, O.
Robertshaw-Fulton Controls Co., Richmond, Va.
Taylor-Winfield Corp., Warren, Ohio.
Thermador Electrical Mfg. Co. Div. of Norris-Thermador
Corp., Los Angeles, Calif.
Union Electric & Mfg. Co., Jersey City, N. J.
Wagner Electric Corp., St. Louis, Mo.
Westinghouse Electric Corp., Pittsburgh, Pa.

# TRANSMISSIONS, VARIABLE SPEED

Allis-Chalmers Mfg. Co., Milwaukee, Wis. American Pulley Co., Philadelphia, Pa. American-Standard Industrial Div., Detroit, Mich. Dodge Mfg. Corp., Mishawaka, Ind.
Lewellen Mfg. Co., Columbus, Ind.
Lima Electric Motor Co., Inc., Lima, O.
Link-Belt Co., Chicago, Ill.
Lovejoy Flexible Coupling Co., Chicago, Ill.
Patlyn Gears & Transmissions Corp., Chicago, Ill.
Philadelphia Gear Corp., Philadelphia, Pa.
Reliance Electric & Engineering Co., Cleveland, O.
Sterling Electric Motors, Inc., Los Angeles, Calif.
U. S. Electrical Motors, Inc., Los Angeles, Calif.

### TRIM, ORNAMENTAL

See Molding and Trim, Ornamental

#### TRUCK BODIES

See Bodies and Accessories, Truck

#### TRUCKS, MOTOR

Chevrolet Motor Div., General Motors Corp., Detroit, Mich. Dodge Div., Chrysler Corp., Detroit, Mich. Ford Div., Ford Motor Co., Dearborn, Mich. GMC Truck & Coach Div., General Motors Corp., Pontiac, Mich. International Harvester Co., Motor Truck Div., Chicago, Ill. White Motor Co., Cleveland, O.

# TRUCKS, WAREHOUSE

American Pulley Co., Philadelphia, Pa. Big Joe Mfg. Co., Wisconsin Dells, Wis. Elwell-Parker Electric Co., Cleveland, O. Lamson Mobilift Corp., Portland, Ore. (Lift) Yale & Towne Mfg. Co., The, Philadelphia, Pa.

#### TUBES, GAS LIGHTER

See Controls, Pllot, Gas Burner

# TUBING, ALUMINUM

Aluminum Co. of America, Pittsburgh, Pa.
American Brass Co., Waterbury, Conn.
Anaconda Aluminum Co., The, Louisville, Ky.
Bohn Aluminum & Brass Corp., Detroit, Mich.
Harvey Aluminum & Chemical Sales, Inc., Oakland, Calif.
Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif.
Lewin-Mathes, Lewis Metals Div., St. Louis, Mo.
Penn Brass & Copper Co., Erie, Pa.
Revere Copper & Brass Inc., New York, N. Y.
Reynolds Metals Co., Richmond, Va.
United Wire & Supply Corp., Providence, R. I.
Wolverine Tube Div. of Calumet & Hecla, Inc., Allen Park, Mich.

#### TUBING, CAPILLARY, FOR REFRIGERANTS

Allin Mfg. Co., Chicago, Ill.
American Brass Co., Waterbury, Conn.
Kensico Tube Co., Mt. Kisco, N. Y.
Madden Brass Products, Aurora, Ill.
Wabash Corp., Chicago, Ill.
Wolverine Tube Co., Div. of Calumet & Hecla, Inc., Allen
Park, Mich.

# TUBING, COPPER

American Brass Co., Waterbury, Conn.
Brass & Copper Tube Div., Triangle Conduit & Cable Co., Inc.,
New Brunswick, N. J.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Hussey & Co., C. G., Pittsburgh, Pa.
Kensico Tube Co., Mt. Kisco, N. Y.
Lewin-Mathes Co., Div. of Cerro de Pasco Corp., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Penn Brass & Copper Co., Erie, Pa.
Phelps Dodge Copper Products Corp., New York, N. Y.
Revere Copper & Brass Inc., New York, N.Y. (Also expanded channels for heat exchange surfaces)

Scovill Mfg. Co., Waterbury, Conn.
United Wire & Supply Corp., Providence, R. I.
Wolverine Tube Div. of Calumet & Hecla, Inc., Allen Park, Mich.

# TUBING, FITTINGS AND VALVES, PLASTIC

American Agile Corp., Bedford, O.
American Hard Rubber Co., Butler, N. J.
Aqua-Therm, Inc., Dayton, O.
Argo Plastic Products, Cleveland, O.
Atlas Mineral Products Co., Mertztown, Pa.
Brass & Copper Tube Div., Triangle Conduit & Cable Co., Inc.,
New Brunswick, N. J.
Carlon Products, Aurora, O.
Chase Brass & Copper Co., Inc., Waterbury, Conn.
Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works Co.,
Cleveland, O.
Commercial Plastics Co., Chicago, Ill.
Franklin Plastics, Inc., Franklin, Pa.
Goodrich Industrial Products Co., B. F., Koroseal Div., Marietta, O.
Haveg Corp., Wilmington, Del.
Imperial Brass Mfg. Co., Chicago, Ill.
Industrial Plastic Fabricators, Inc., Norwood, Mass.
Irvington Div., Minnesota Mining & Mfg. Co., Irvington, N. J.
Laminated Sheet Products Corp., Norwood, Mass.
Luzerne Rubber Co., Trenton, N. J.
Lynch Asbestos Co., Los Angeles, Calif.
Mannesmann-Easton Plastic Products Co., Inc., Easton, Pa.
Mills Corp., Elmer E., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Pacific States Felt & Mfg. Co., Inc., San Francisco, Calif.
Plastex Co., Columbus, O.
Polymer Corp., Reading, Pa.
Quick Plastics, Div. of Quick Industries, Inc., Jackson, Mich.
Republic Steel Corp., Cleveland, O.
Saran Lined Pipe Co., Ferndale, Mich.
Sloane Mfg. Co., Sun Valley, Calif.
Southwest Plastic Pipe Co., Mineral Wells, Tex.
Steel & Tubes Div., Republic Steel Corp., Cleveland, O.
United States Rubber Co., New York, N. Y.
Victaulic Co. of America, Elizabeth, N. J.
Weatherhead Co., Ft. Wayne Div., Ft. Wayne, Ind.
Yardley Plastics Co., Columbus, O.
Youngstown Sheet & Tube Co., Youngstown, O.

# TUBING, NICKEL AND NICKEL ALLOY

Crucible Steel Co. of America, Pittsburgh, Pa.

Damascus Tube Co., Greenville, Pa.

International Nickel Co., Inc., New York, N. Y.

Revere Copper & Brass Inc., New York, N. Y.

Wall Tube and Metal Products Co., Newport, Tenn.

Wolverine Tube Div. of Calumet & Hecla, Inc., Allen Park, Mich.

Youngstown Welding & Engineering Co., Youngstown, O.

(Monel)

# TUBING, STEEL

Armoo Steel Corp., Middletown, Ohio.
Bethlehem Steel Co., Bethlehem, Pa.
Bundy Tubing Co., Detroit, Mich.
Crucible Steel Co. of America, Pittsburgh, Pa.
Damascus Tube Co., Greenville, Pa.
H-P Products, Inc., Louisville, O.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Laclede Steel Co., St. Louis, Mo.
Michigan Steel Tube Products Co., Detroit, Mich.
Pittsburgh Steel Corp., Cleveland, Ohio.
Revere Copper & Brass, Inc., New York, N. Y. (Welded)
Sharon Steel Corp., Sharon, Pa.
Steel & Tubes Div., Republic Steel Corp., Cleveland, Ohio.
Timken Roller Bearing Co., Canton, Ohio.
Wall Tube and Metal Products Co., Newport, Tenn.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

# **TUBING, STEEL, STAINLESS**

Allegheny-Ludium Steel Corp., Pittsburgh, Pa. Carpenter Steel Co., Alloy Tube Div., Union, N. J. Chase Brass & Copper Co., Inc., Waterbury, Conn. Crucible Steel Co. of America, Pittsburgh, Pa. Damascus Tube Co., Greenville, Pa. Flexonics Corp., Maywood, Ill.

Michigan Steel Tube Products Co., Detroit, Mich.
Republic Steel Corp., Cleveland, Ohio.
Steel & Tubes Div., Republic Steel Corp., Cleveland, Ohio.
Timken Roller Bearing Co., Canton, Ohio.
Wiegand Co., Edwin L., Pittsburgh, Pa.
Youngstown Welding & Engineering Co., Youngstown, O.

#### TURNING VANES

See Vanes, Duct Turning

# UNITARY AIR CONDITIONERS, SUMMER, COIL WITH BLOWER FOR SPLIT SYSTEM

Consisting of Coil, Blower, Sheet Metal Housing and Connections for Remote Condensing Unit or Cold Water Supply

Amana Refrigeration, Inc., Amana, Ia.
American-Standard Air Conditioning Div., New York, N. Y.
Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Brown Products Corp., Union, N. J.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Continental Mfg. Co., Phoenix, Ariz.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Fraser & Johnston Co., San Francisco, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Heat Controller, Inc., Jackson, Mich.
Henry Furnace Co., Medina, O.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Marlo Coil Co., St. Louis, Mo.
Miami Products, Inc., Miami, Okla.
Mueller Climatrol, Milwaukee, Wis.
Olsen Mfg. Co., The C. A., Elyria, O.
Rheem Mfg. Co., Chicago, Ill.
Southwest Mfg. Co., Aurora, Mo.
Texas Products Mfg. Co., Waco, Tex.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., La Crosse, Wis.
Viking Mfg. Corp., Cleveland, O.
Wright Mfg. Co., Phoenix, Ariz.

# UNITARY AIR CONDITIONERS, SUMMER, COIL WITHOUT BLOWER FOR SPLIT SYSTEM

Consisting of Coll, Sheet Metal Housing and Connections for Remote Condensing Unit or Cold Water Supply

Addison Products Co., Addison, Mich.
Air Conditioning Engineering Co., Cambridge, Mass.
Air Products, St. Louis, Mo.
Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
American Coils Co., Farmingdale, N. J.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O.
Bard Mfg. Co., Bryant, O.
Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
Betz Div., Bohn Aluminum and Brass Corp., Danville, Ill.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Brown Products Corp., Union, N. J.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Iowa
Chattanooga Royal Co., Chattanooga, Tenn.
Chicago Steel Furnace Co., Chicago, Ill.
Cobell Industries, Inc., Cleburne, Tex.
Coleman Co., Inc., Wichita, Kans.
Columbia Burner Co., Toledo, O.
Conce Engineering Works, Heating and Air Conditioning Div.,
Mendota, Ill.
Continental Mfg. Co., Phoenix, Ariz.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Cool-Ette, Inc., Detroit, Mich.
Crane Co., Chicago, Ill.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Custom-Temp Corp., Liberty, N. Y.
Deansteel Products, San Antonio, Texas
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dornback Furnace & Foundry Co., Eastlake, O.
Dowagiac Steel Furnace Co., Dowagiac, Mich.

Drayer-Hanson Div. of National-U.S. Radiator Corp., Los Angeles, Calif. Dunham-Bush, Inc., West Hartford, Conn. Dunnam-bush, Inc., west Hartford, Conn. Fedders Corp., Maspeth, N. Y. Forston Co., Houston, Tex. Fraser & Johnston Co., San Francisco, Calif. Frigid Coil, Inc., El Monte, Calif. Gaffers & Sattler, Los Angeles, Calif. General Electric Co., Air Conditioning Dept., Tyler, Tex. Conversi Frigid Coil, Inc., El Monte, Calif.
Gaffers & Sattler, Los Angeles, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Governair Corp., Oklahoma City, Okla.
Green Colonial, Inc., Des Moines, Ia.
Grove Furnace, Inc., Garden Grove, Calif.
Hall-Neal Furnace Co., Indianapolis, Ind.
Halstead & Mitchell, Pittsburgh, Pa.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Heat Controller, Inc., Jackson, Mich.
Henry Furnace Co., Medina, O.
Holly-General Co., Pasadena, Calif.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Kennard Corp., St. Louis, Mo.
Kool Engineering Corp., Chicago, Ill.
Larkin Coils, Inc., Atlanta, Ga.
Laurel Products, Inc., Laurel, Miss.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Magic Aire Div., United Electric Co., Wichita Falls, Tex.
Majestic Co., Inc., Huntington, Ind.
Marlo Coil Co., St. Louis, Mo.
Mathes Co., Div. of Glen Alden Corp., Fort Worth, Tex.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McQuay, Inc., Minneapolis, Minn.
Mcyer Furnace Co., Peroia, Ill.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
National-U.S. Radiator Corp., Houston, Tex.
National-U.S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Perfection Industries, Div. of Hupp Corp., Cleveland, O. Patten Co., J. V., Sycamore, III.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Recold Corp., Los Angeles, Calif.
Refrigeration Appliances, Inc., Chicago, III.
Rheem Mfg. Co., Chicago, III.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Silent Automatic Products, Cleveland, O.
Southwest Mfg. Co., Aurora, Mo.
Temperature Control, Inc., Atlanta, Ga.
Texas Products Mfg. Co., Waco, Tex.
Therm-Air Mfg. Co., Peekskill, N. Y.
Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., The, La Crosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y. N. Y.
United Electric Co., Wichita Falls, Tex.
United States Air Conditioning Corp., Delaware, O.
Vendorlator Mfg. Co., Fresno, Calif.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union Elec-Williams Oil-O-Matic Heating Co., Div. of National Untric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wright Mfg. Co., Phoenix, Ariz.
XXth Century Heating & Ventilating Co., Akron, O.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
Young Radiator Co., Racine, Wis.
Zink Co., John, Tulsa, Okla.

# UNITARY AIR CONDITIONERS, SUMMER, CONDENSING UNIT FOR SPLIT SYSTEM

Consisting of Compressor-Condenser, Motor, Receiver, Base and Housing (Capacities up to 180,000 Btuh only)

Addison Products Co., Addison, Mich.

Aimco Products Corp., Inc., Subsidiary of Yuba Consolidated Industries, Inc., Tulsa, Okla.

American Coils Co., Farmingdale, N. J.
American-Standard Air Conditioning Div., New York, N. Y.
Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind.
Arizona Maintenance Co., Tucson, Ariz.
Armstrong Furnace Co., Div. of National Union Electric Corp., Anchor Div., Stratton & Terstegge Co., Inc., New Albany, Ind. Arizona Maintenance Co., Tucson, Ariz.

Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O.

Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis. Bendix-Westinghouse Automotive Air Brake Co., Evansville, Ind. Blissfield Mfg. Co., Blissfield, Mich.

Bonair Div., Peerless Products Co., Philadelphia, Pa. Brown Products Corp., Union, N. J.

Brucker, Inc., M., Chicago, Ill.

Bryant Mfg. Co., Indianapolis, Ind.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Carrier Corp., Syracuse, N. Y.

Chattanooga Royal Co., Chattanooga, Tenn.

Chicago Steel Furnace Co., Chicago, Ill.

Gircle Equipment Co., Indianapolis, Ind.

Cobell Industries, Inc., Cleburne, Tex.

Coleman Co., Inc., Wichita, Kans.

Columbia Burner Co., Toledo, O.

Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill.

Continental Mfg. Co., Phoenix, Ariz.

Coolerator Div., McGraw-Edison Co., Albion, Mich.

Cool-Ette, Inc., Detroit, Mich.

Copeland Refrigeration Corp., Sidney, O.

Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.

Custom-Temp Corp., Liberty, N. Y.

Day & Night Mfg. Co., La Puente, Calif.

Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Diceler Div., General Machine & Mfg. Co., Berwick, Pa.

Dornback Furnace & Foundry Co., Eastlake, O.

Dowagiac Steel Furnace Co., Dowagiac, Mich.

Dunham-Bush, Inc., West Hartford, Conn.

Fedders Corp., Maspeth, N. Y.

Felter Co., John, Houston, Tex.

Fraser & Johnston Co., San Francisco, Calif.

Frick Co., Waynesbro, Pa.

Gaffers & Sattler, Los Angeles, Calif.

General Electric Co., Air Conditioning Dept., Tyler, Texas

Hall-Neal Furnace Co., Indianapolis, Ind.

Halstead & Mitchell, Pittsburgh, Pa.

Heat Controller, Inc., Jackson, Mich.

Henry Furnace Co., Medina, O.

Lonlier Heating and Air Conditioning Div., Surface Combustion Henry Furnace Co., Medina, O.
Holly-General Co., Pasadena, Calif.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Kool Engineering Corp., Chicago, Ill.
Laurel Products, Inc., Laurel, Miss.
Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Majestic Co., Inc., Huntington, Ind.
Meyer Furnace Co., Peoria, Ill.
Miami Products, Inc., Miami, Okla.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
National-U.S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind. Peerless Corp., Indianapolis, Ind.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Reliance Refrigerating Machine Co., Chicago, Ill. Reliance Refrigerating Machine Co., Chicago, Ill.
Rheem Mfg. Co., Chicago, Ill.
Rheem Mfg. Co., Chicago, Ill.
Roberts-Gordon Appliance Co., Buffalo, N. Y.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Sequoia Mfg. Co., San Carlos, Calif.
Shana Mfg. Co., San Carlos, Calif.
Shana Mfg., Inc., Chicago, Ill.
Silent Automatic Products, Cleveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Smith, Inc., E. B., St. Petersburg, Fla.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind. Lebanon, Ind.
Tecumseh Products Co., Tecumseh, Mich.
Temco, Inc., Nashville, Tenn.
Temperature Control, Inc., Atlanta, Ga.
Texas Products Mfg. Co., Waco, Tex.
Thatcher Furnace Co., Garwood, N. J. Therm-Air Mfg. Co., Peekskill, N. Y.

Airtemp Div., Chrysler Corp., Dayton, O. Amana Refrigeration, Inc., Amana, Ia.

Thermo-Products, Inc., North Judson, Ind.
Toridheet Div., Cleveland Steel Products Corp., Cleveland, O.
Trane Co., The, La Crosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
United States Air Conditioning Corp., Delaware, O.
Vendorlator Mfg. Co., Fresno, Calif.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Webster & Co., Warren, Camden, N. J.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

Williams Oil-O-Matic Heating Co., Div. of National Union tric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wright Mfg. Co., Phoenix, Ariz.
XXth Century Heating & Ventilating Co., Akron, O.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
Zink Co., John, Tulsa, Okla.

# UNITARY AIR CONDITIONERS, SUMMER, REFRIGERATION CHASSIS

# Consisting of Cooling Coll, Compressor-Condenser Unit and Filter, for Duct Distribution of Air

Addison Products Co., Addison, Mich. Air Conditioning Engineering Co., Cambridge, Mass. Airtemp Div., Chrysler Corp., Dayton, O. Amana Refrigeration, Inc., Amana, Ia. American Coils Co., Farmingdale, N. J.
American Furnace Co., St. Louis, Mo.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O. Auburn Burner Co., Edgerton, O. Auburn Burner Co., Edgerton, O.
Bal-Air Inc., Nashville, Tenn.
Bard Mfg. Co., Bryant, O.
Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Blissfield Mfg. Co., Blissfield, Mich.
Brown Products Corp., Union, N. J.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia. Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Chicago Steel Furnace Co., Chicago, Ill.
Coleman Co., Inc., Wichita, Kans.
Columbia Specialty Co., Inc., Chevy Chase, Md.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendete. Ill. Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Cool-Ette, Inc., Detroit, Mich.
Crane Co., Chicago, Ill.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Fedders Corp., Maspeth, N. Y.
Forston Co., Houston, Tex.
Friedrich Refrigerators, Inc., San Antonio, Tex.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex. General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Green Colonial Inc., Des Moines, Ia.
Hall-Neal Furnace Co., Indianapolis, Ind.
Harvey-Hill, Inc., St. Louis, Mo.
Hastings Air Control, Inc., Omaha, Nebr.
Heil-Quaker Corp., Nashville, Tenn.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Mayflower Air Conditioners, Inc., St. Paul, Minn. Lincoln Furnace Co., Inc., Hawthorne, N. J.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Melchior, Armstrong, Dessau Co., Ridgefield, N. J.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National-U.S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O. Sequoia Mfg. Co., San Carlos, Calif.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Temco, Inc., Nashville, Tenn.
Trane Co., The, La Crosse, Wis.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
United States Air Conditioning Corp., Delaware, O.
Viking Mfg. Corp., Cleveland, O.
Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The, Cincinnati, O.
Wood Co., John, Heater & Tank Div., Conshohocken, Pa.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

### UNITARY AIR CONDITIONERS, SUMMER, REFRIGERATION CHASSIS

# Consisting of Cooling Coil, Filter and Compressor with Connections to Remote Condenser, for Duct Distribution of Air

Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis. Brown Products Corp., Union, N. J. Carrier Corp., Syracuse, N. Y.

# UNITARY AIR CONDITIONERS, SUMMER, REMOTE CONDENSER TYPE, FLOOR CABINET

# Consisting of Blower, Filter, Cooling Coil and Compressor with Connection to Remote Condenser, for Duct Distribution of Air

Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis. Carrier Corp., Syracuse, N. Y.

### UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, EVAPORATIVE COOLER

# Consisting of Blower, Filter, Pump and Sprays or Mats (for cooling by evaporation)

Air Cooling Engineering Co., Evanston, Ill.
Air & Refrigeration Corp., New York, N. Y.
Alton Mfg. Co., Dallas, Tex.
American Cooling Tower Co., Kansas City, Mo.
Arizona Maintenance Co., Tucson, Ariz.
Belmetals Mfg. Co., Inc., Belmont, Calif.
Brown, Gene, San Antonio, Tex.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Comfort Products Inc., Dallas, Tex.
Dearborn Stove Co., Dallas, Tex.
Essick Mfg. Co., Los Angeles, Calif.
Farr Co., Los Angeles, Calif.
Gaffers & Sattler, Los Angeles, Calif.
Hayes Furnace & Mfg. & Supply Co., Los Angeles, Calif.
Heating Assurance, Inc., Spokane, Wash.
International Metal Products Co., Phoenix, Ariz.
KVS Industries Inc., North Sacramento, Calif.
Kleer-Kleen Mfg. Co., Hayward, Calif.
Lennox Industries Inc., Marshalltown, Ia.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.
Magic Aire Div., United Electric Co., Wichita Falls, Tex.
Morey, Dan, Los Angeles, Calif.
Mountain States Equipment Co., Denver, Colo.
National Engineering & Mfg. Co., Sedalia, Mo.
National Engineering & Mfg. Co., Denver, Colo.
National Engineering & Mfg. Co., Dension, Tex.
Palmer Mfg. Corp., Phoenix, Ariz.
Southwest Mfg. Co., Aurora, Mo.
Speedy Mfg. & Sales Co., Amarillo, Tex.
Thompson Mfg. Co., A. F., Huntington, W. Va.
Winter Mfg. Co., Winter, Tex.
Wright Mfg. Co., Phoenix, Ariz.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, FLOOR CABINET

# Consisting of Blower, Cooling Coil, Compressor-Condenser Unit and Filter, for Duct Distribution of Air

Addison Products Co., Addison, Mich. Air Conditioning Engineering Co., Cambridge, Mass. Airflex Corp., Champaign, Ill. Air Products, St. Louis, Mo. Airtemp Div., Chrysler Corp., Dayton, O. Airtron Corp., Div. of The Higgins Metal Products Co., Holland, O.

American Coils Co., Farmingdale, N. J.

American Furnace Co., St. Louis, Mo.

Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O.

Columbus, O.

Auburn Burner Co., Edgerton, O.

Bal-Air, Inc., Nashville, Tenn.

Bard Mfg. Co., Bryant, O.

Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.

Besser Furnace and Air Conditioning Corp., Charlotte, N. C.

Blissfield Mfg. Co., Blissfield, Mich.

Bonair Div., Peerless Products Co., Philadelphia, Pa.

Brown Products Corp., Union, N. J.

Burnham Corp., Irvington, N. Y.

Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Carrier Corp., Syracuse, N. Y.

Central States Mfg. Co., Inc., Arkansas City, Kans.

Chatanooga Royal Co., Chatanooga, Tenn.

Chicago Steel Furnace Co., Chicago, Ill.

Columbia Specialty Co., Inc., Chevy Chase, Md.

Conco Engineering Works, Heating and Air Conditioning Div.,

Mendota, Ill.

Cond Air Div. Ellion Feeingering Co., Languard, C. 126. Conco Engineering Works, Heating and Air Conditioning Div Mendota, Ill.
Cond-Air Div., Elliott Engineering Co., Lynwood, Calif.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Cool-Ette, Inc., Detroit, Mich.
Crane Co., Chicago, Ill.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dowagiac Steel Furnace Co., Dowagiac, Mich.
Fedders Corp., Maspeth, N. Y.
Forston Co., Houston, Tex.
Fraser & Johnston Co., San Francisco, Calif.
Friedrich Refrigerators, Inc., San Antonio, Tex.
Gaffers & Sattler, Los Angeles, Calif.
General Air Conditioning Corp., Los Angeles, Calif.

Gaffers & Sattler, Los Angeles, Calif.
Gaffers & Sattler, Los Angeles, Calif.
General Air Conditioning Corp., Los Angeles, Calif.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Governair Corp., Oklahoma City, Okla.
Great Northern Mfg. Corp., Chicago, Ill.
Green Colonial Inc., Des Moines, Ia.
Grove Furnace, Inc., Garden Grove, Calif.
Hall-Neal Furnace Co., Indianapolis, Ind.
Harvey-Hill, Inc., St. Louis, Mo.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
Hastings Air Control, Inc., Omaha, Nebr.
Heat Controller, Inc., Jackson, Mich.
Heil-Quaker Corp., Nashville, Tenn.
Henry Furnace Co., Medina, O.
International Heater Co., Utica, N. Y.
Iron Fireman Mfg. Co., Cleveland, O.
Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O.
Keith Furnace Co., Des Moines, Ia.
Laurel Products, Inc., Laurel, Miss.

tion Corp., Columbus, O.
Keith Furnace Co., Des Moines, Ia.
Laurel Products, Inc., Laurel, Miss.
Lennox Industries Inc., Marshalltown, Ia.
Lincoln Air Control Products, Inc., Swarthmore, Pa.
Lincoln Furnace Co., Inc., Hawthorne, N. J.
Made-Rite Co., Inc., Newport, Ky.
Majestic Co., Inc., Huntington, Ind.
Mathes Co., Div. of Glen Alden Corp., Fort Worth, Tex.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
Meyer Furnace Co., Peoria, Ill.
Midwest Automatic Control Co., Des Moines, Ia.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
Nat Corp., The, Kansas City, Mo.
National Thermatic Corp., Houston, Tex.
National Thermatic Corp., Houston, Tex.
National-U.S. Radiator Corp., Johnstown, Pa.
Niagara Furnace Div., Forest City Foundries Co., Cleveland, O.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Philco Corp., Philadelphia, Pa.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Remington Air Conditioning Div., Remington Corp., Auburn,
N. Y.
Round Oak Co., Inc., Dowagiac, Mich.

N. Y.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Shana Mfg., Inc., Chicago, Ill.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Smith, Inc., E. B., St. Petersburg, Fla.
Temco, Inc., Nashville, Tenn.
Thatcher Furnace Co., Garwood, N. J.
Therm-Air Mfg. Co., Peekskill, N. Y.

Thermo-Products, Inc., North Judson, Ind. Toridheet Div., Cleveland Steel Products Corp., Cleveland, O. Trane Co., The, LaCrosse, Wis.

Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,

N. Y.
United States Air Conditioning Corp., Delaware, O.
Viking Mfg. Corp., Cleveland, O.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Whitehall Engineering Co., Chicago, Ill.
Williams Oil-O-Matic Heating Co., Div. of National Union Elec-

tric Corp., Columbus, O. Wright Mfg. Co., Phoenix, Ariz. York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, HORIZONTAL CABINET

Consisting of Blower, Cooling Coil, Compressor-Co and Filter, for Duct Distribution of Alr -Condenser Unit

Addison Products Co., Addison, Mich. Airtemp Div., Chrysler Corp., Dayton, O. Airtron Corp., Div. of The Higgins Metal Products Co., Hol-

land, O. Amana Refrigeration, Inc., Amana, Ia.

Amana Refrigeration, Inc., Amana, Ia.
American Coils Co., Farmingdale, N. J.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O.
Bryant Mfg. Co., Indianapolis, Ind.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Ia.
Coleman Co., Inc., Wichita, Kans.
Continental Mfg. Co., Phoenix, Ariz.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Cool-Ette, Inc., Detroit, Mich.
Crane Co., Chicago, Ill.

Continental Mfg. Co., Phoenix, Ariz.
Cool-Ette, Inc., Detroit, Mich.
Crane Co., Chicago, Ill.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Fedders Corp., Maspeth, N. Y.
General Automatic Products Corp., Baltimore, Md.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Great Northern Mfg. Corp., Chicago, Ill.
Harvey-Hill, Inc., St. Louis, Mo.
Hastings Air Control, Inc., Omaha, Nebr.
Heat Controller, Inc., Jackson, Mich.
Heil-Quaker Corp., Nashville, Tenn.
International Heater Co., Utica, N. Y.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Laurel Products, Inc., Laurel, Miss.
Lennox Industries Inc., Marshalltown, Ia.
Mathes Co., Div. of Glen Alden Corp., Fort Worth, Tex.
Mayflower Air Conditioniners, Inc., St. Paul Minn.
McQuay, Inc., Minneapolis, Minn.
McGuay, Inc., Minneapolis, Minn.
Mercury Air Conditioning & Heating Equipment, Div. of Lord
and Palmer, Inc., Belding, Mich.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
National-U.S. Radiator Corp., Johnstown, Pa.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
RCA-Whirlpool, Central Home Air Conditioning Div., WhirlpoolSeeger Corp., St. Joseph, Mich.
Rheem Mfg. Co., Chicago, Ill.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Shana Mfg., Inc., Chicago, Ill.
Sheet Metal Mfg. Co., Youngstown, O.
Silent Automatic Products, Cieveland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southwest Mfg. Co., Aurora, Mo.
Thermo-Products, Inc., North Judson, Ind.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
Viking Mfg. Corp., Cleveland, O.
Westinghouse Electric Corp., Air Conditioning Div. Staunton, Va.

Viking Mfg. Corp., Cleveland, O.

Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

Williamson Co., The, Cincinnati, O. Wright Mfg. Co., Phoenix, Ariz.

York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, ROOM TYPE, FLOOR CABINET

Consisting of Blower, Filter, Cooling Coil and Compressor-Condenser Unit

Addison Products Co., Addison, Mich.
Bal-Air, Inc., Nashville, Tenn.
Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
Burnham Corp., Irvington, N. Y.
Carrier Corp., Syracuse, N. Y.
Continental Mfg. Co., Phoenix, Ariz.
Fedders Corp., Maspeth, N. Y.
General Air Conditioning Corp., Los Angeles, Calif.
Kauffman Air Conditioning Corp., St. Louis, Mo.
Made-Rite Co., Inc., Newport, Ky.
Patten Co., J. V., Sycamore, Ill.
Remington Air Conditioning Div., Remington Corp., Auburn,
N. Y.
Round Oak Co., Inc., Dowagiac, Mich.
Shana Mfg., Inc., Chicago, Ill.
Webster & Co., Warren, Camden, N. J.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, STORE TYPE, FLOOR CABINET

Consisting of Blower, Filter, Cooling Coil and Compressor-Condenser Unit, with Air Discharge Approximately 6 ft Above Floor

Airtemp Div., Chrysler Corp., Dayton, O. Airtem Div., Chryster Corp., Dayton, O.
Alton Mfg. Co., Dallas, Tex.
American Coils Co., Farmingdale, N. J.
American-Standard Air Conditioning Div., New York, N. Y.
American-Standard Industrial Div., Detroit, Mich.
Arizona Maintenance Co., Tucson, Ariz.
Armstrong Furnace Co., Div. of National Union Electric Corp., Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O. Bard Mfg. Co., Bryant, O. Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis. Besser Furnace and Air Conditioning Corp., Charlotte, N. C. Bonair Div., Peerless Products Co., Philadelphia, Pa. Brown Products Corp., Union, N. J. Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa. Carrier Corp., Syracuse, N. Y. Chicago, Ill. Continental Mfg. Co., Phoenix, Ariz. Cool-Ette, Inc., Detroit, Mich. Crane Co., Chicago, Ill. Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo. Custom-Temp Corp., Liberty, N. Y. Dialatemp, Inc., St. Louis, Mo. Frick Co., Waynesboro, Pa. Friedrich Refrigerators, Inc., San Antonio, Tex. General Electric Co., Air Conditioning Dept., Tyler, Tex. Governair Corp., Oklahoma City, Okla. Great Northern Mfg. Corp., Chicago, Ill. Green Colonial Inc., Des Moines, Ia. Haertel Co., Walter, Minneapolis, Minn. Harvey-Hill, Inc., St. Louis, Mo. Hastings Air Conditioning Co., Inc., Hastings, Nebr. Henry Furnace Co., Medina, O. International Heater Co., Utica, N. Y. Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., Columbus, O. Kauffman Air Conditioning Corp., St. Louis, Mo. Lennox Industries Inc., Marshalltown, Ia. Lincoln Air Control Products, Inc., Swarthmore, Pa. Majestic Co., Inc., Huntingston, Ind. Meyer Furnace Co., Peoria, Ill. Columbus, O. Majestic Co., Inc., Huntington, Ind. Meyer Furnace Co., Peoria, III. Midwest Automatic Control Co., Des Moines, Ia. Midwest Automatic Control Co., Des Moines, Ia.
National-U.S. Radiator Corp., Johnstown, Pa.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Philto Corp., Philadelphia, Pa.
Ralph Mfg. Co., Inc., Wadsworth, O.
Rinehart, Inc., Richmond, Ind.
Round Oak Co., Inc., Dowagiac, Mich.
Thatcher Furnace Co., Garwood, N. J.
Therm-Air Mfg. Co., Peekskill, N. Y.
Trane Co., The, La Crosse, Wis.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
United States Air Conditioning Corp., Delaware, O.
Viking Mfg. Corp., Cleveland, O.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va. Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, STORE TYPE, SUSPENDED CABINET

Consisting of Blower, Filter, Cooling Call and Compressor-Condenser Unit

Addison Products Co., Addison, Mich.
Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
American Coils Co., Farmingdale, N. J.
Bal-Air, Inc., Nashville, Tenn.
Barkow Mfg. Co., Inc., Aug. G., Milwaukee, Wis.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Central States Mfg. Co., Inc., Arkansas City, Kans.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Fedders Corp., Maspeth, N. Y.
Forston Co., Houston, Tex.
Friedrich Refrigerators, Inc., San Antonio, Tex.
General Air Conditioning Corp., Los Angeles, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Green Colonial Inc., Des Moines, Ia.
Hastings Air Control, Inc., Omaha, Nebr.
International Heater Co., Utica, N. Y.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Lennox Industries Inc., Marshalltown, Ia.
Melchior, Armstrong, Dessau Co., Ridgefield, N. J.
Meyer Furnace Co., Peoria, Ill.
National-U.S. Radiator Corp., Johnstown, Pa.
Olsen Mfg. Co., The C. A., Elyria, O.
Patten Co., J. V., Sycamore, Ill.
Payne Co., The, La Puente, Calif.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Round Oak Co., Inc., Dowagiac, Mich.
Silent Automatic Products, Cleveland, O.
Thermo-Products, Inc., North Judson, Ind.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
Williamson Co., The, Cincinnati, O.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, THROUGH-WALL MOUNTED

Wright Mfg. Co., Phoenix, Ariz.

Consisting of Blower, Filter, Cooling Coil and Compressor-Condenser Unit, for Duct Distribution of Air

Addison Products Co., Addison, Mich.
Airflow Co., Wheaton, Md. (For military applications)
Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
American-Standard Air Conditioning Div., New York, N. Y.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O.
Bal-Air, Inc., Nashville, Tenn.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Brown Products Corp., Union, N. J.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Chattanooga Royal Co., Chattanooga, Tenn.
Cobell Industries, Inc., Cleburne. Tex.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Fedders Corp., Maspeth, N. Y.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Heat Controller, Inc., Jackson, Mich.
International Heater Co., Utica, N. Y.
King Refrigerator Co., Glendale, N. Y.
Lennox Industries Inc., Marshalltown, Ia.
Mayflower Air Conditioning & Heating Equipment, Div. of Lord
and Palmer, Inc., Belding, Mich.
Modine Mfg. Co., Racine, Wis.
Mueller Climatrol, Milwaukee, Wis.
National Thermatic Corp., Houston, Tex.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Redmondson Corp., York, Pa.

Silent Automatic Products, Cleveland, O. Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,

Webster & Co., Warren, Camden, N. J.
Westinghouse Electric Corp., Air Co. ditioning Div., Staunton, Va.
Westinghouse Electric Corp., Refrigeration Specialties Div.,
Springfield, Mass.

Williamson Co., The, Cincinnati, O. York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, SUMMER, SELF-CONTAINED, WINDOW TYPE

Consisting of Blower, Filter, Cooling Coil and Compressor-Con-denser Unit

AMIC Mfg. Corp., Long Island City, N. Y. Addison Products Co., Addison, Mich. Addison Products Co., Addison, Mich.
Admiral Corp., Chicago, Ill.
Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
Arizona Maintenance Co., Tucson, Ariz.
Blissfield Mfg. Co., Blissfield, Mich.
Burnham Corp., Irvington, N. Y.
Carrier Corp., Syracuse, N. Y.
Coolerator Div., McGraw-Edison Co., Albion, Mich.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Emerson Electric Mfg. Co., St. Louis, Mo.
Emerson Radio & Phonograph Corp., Jersey City, N. J.
Fedders Corp., Maspeth, N. Y.
Forston Co., Houston, Tex.
Friedrich Refrigerators, Inc., San Antonio, Tex.
Frigid, Inc., Brooklyn, N. Y.
General Appliance Corp., Greenville, Mich.
General Electric Co., Major Appliance Div., Room Air Conditioner Dept., Louisville, Ky. General Electric Co., Major Appliance Div., Room Air Conditioner Dept., Louisville, Ky.

Great Northern Mfg. Corp., Chicago, Ill.

Heat Controller, Inc., Jackson, Mich.

Hotpoint, Div. General Electric Co., Chicago, Ill.

I. W. Air Conditioning Corp., Bronx 59, New York

Kauffman Air Conditioning Corp., St. Louis, Mo.

Kelvinator Div., American Motors Corp., Detroit, Mich.

King Refrigerator Co., Glendale, N. Y.

Lewyt Air-Conditioner Corp., Long Island City, N. Y.

Made-Rite Co., Inc., Newport, Ky.

Mathes Co., Div. of Glen Alden Corp., Fort Worth, Tex.

Philico Corp., Philadelphia, Pa.

RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.

Remington Air Conditioning Div., Remington Corp., Auburn,

N. Y.

United States Air Conditioning Corp., Delaware, O.
Viking Mfg. Corp., Cleveland, O.
Welbilt Corp., Maspeth, L.I. N. Y.
Western Auto Supply Co., Kansas City, Mo.
Westinghouse Electric Corp., Air Conditioning Div., Staunton,

Westinghouse Electric Corp., Appliance Div., Mansfield, O. Westinghouse Electric Corp., Refrigeration Specialties Div., Springfield, Mass.

Whitehall Engineering Co., Chicago, Ill. York Corp. Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, SUMMER, SPLIT SYSTEM, ROOM TYPE, FLOOR CABINET, WITH CONNECTIONS FOR REMOTE COMPRESSOR-CONDENSER UNIT OR COLD WATER SUPPLY

Consisting of Blower, Filter and Cooling Coil

Air Conditioning Engineering Co., Cambridge, Mass. American Coils Co., Farmingdale, N. J. Bal-Air, Inc., Nashville, Tenn. Bal-Air, Inc., Nashville, Tenn.
Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Continental Mfg. Co., Phoenix, Ariz.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Drayer-Hanson Div. of National-U.S. Radiator Corp., Los Angeles, Calif. les, Calif.
Dunham-Bush, Inc., West Hartford, Conn.
Hastings Air Conditioning Co., Inc., Hastings, Nebr.
International Mfg. Co., Oklahoma City, Okla.
Kritzer Radiant Coils, Inc., Batavia, Ill.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.

National-U.S. Radiator Corp., Johnstown, Pa.
Patten Co., J. V., Sycamore, Ill.
Refrigeration Appliances, Inc., Chicago, Ill.
Round Oak Co., Inc., Dowagiac, Mich.
Shana Mfg., Inc., Chicago, Ill.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y. N. Y. United States Air Conditioning Corp., Delaware, O. Webster & Co., Warren, Camden, N. J. York Corp., Subsidiary of Borg-Warner Corp., York, Pa. Young Radiator Co., Racine, Wis.

### UNITARY AIR CONDITIONERS, WINTER, SPLIT SYSTEM

Consisting of Blower, Filter, Humidifier, Heating Coll with Con-nections for Remote Steam or Hot Water Source, for Duct Dis-tribution of Air

Air Conditioning Engineering Co., Cambridge, Mass. American Coils Co., Farmingdale, N. J. Carrier Corp., Syracuse, N. Y.
Clarage Fan Co., Kalamazoo, Mich.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Drayer-Hanson Div. of National-U.S. Radiator Corp., Los Angeles, Calif.

Dunham-Bush, Inc., West Hartford, Conn.

Hastings Air Conditioning Co., Inc., Hastings, Nebr.

Johnson Co., S. T., Oakland, Calif.

Kennard Corp., St. Louis, Mo.

Marlo Coil Co., St. Louis, Mo.

National-U.S. Radiator Corp., Johnstown, Pa.

Peerless of America, Inc., Chicago, Ill.

Peerless of America, Inc., Chicago, Ill. Peerless of America, Inc., Chicago, Ill.
Recold Corp., Los Angeles, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
United States Air Conditioning Corp., Delaware, O.
Western Blower Co., Seattle, Wash.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Young Radiator Co., Racine, Wis.

# UNITARY AIR CONDITIONERS, WINTER, SPLIT SYSTEM, ROOM TYPE, FLOOR CABINET

Consisting of Blower, Filter and Heating Coil for Connection to Remote Heat Source

Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Dunham-Bush, Inc., West Hartford, Conn.
Kritzer Radiant Coils, Inc., Batavia, Ill.
Marlo Coil Co., St. Louis, Mo.
National-U.S. Radiator Corp., Johnstown, Pa.
Remington Air Conditioning Div., Remington Corp., Auburn,
N. Y. (Incremental system) N. Y. (Incremental system)
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y. United States Air Conditioning Corp., Delaware, O. Webster & Co., Warren, Camden, N. J.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, HEAT PUMP, OTHER THAN SELF-CONTAINED

Consisting of Blower, Filter, Humidifier, Heating and Cooling Colls, Reverse Refrigeration Cycle Switching Equipment, and Connections for Remote Compressor-Condenser Unit, for Duct Distribution of Air

American-Standard Air Conditioning Div., New York, N. Y. Bard Mfg. Co., Bryant, O. Carrier Corp., Syracuse, N. Y. Continental Mfg. Co., Phoenix, Ariz. Forston Co., Mfr., Houston, Tex. Fraser & Johnston Co., San Francisco, Calif. General Electric Co., Air Conditioning Dept., Tyler, Tex. Heat Controller, Inc., Jackson, Mich. Laurel Products, Inc., Laurel, Miss. Mueller Climatrol, Milwaukee, Wis. Perfection Industries, Div. of Hupp Corp., Cleveland, O. Weatherking of Florida, Orlando, Fla. Weatherking of Florida, Orlando, Fla. Westinghouse Electric Corp., Air Conditioning Div., Staunton,

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, HEAT PUMP, SELF-CONTAINED

Consisting of Blower, Filter, Humidifier, Heating and Cooling Colls, Compressor-Condenser Unit and Reverse Refrigeration Cycle Switching Equipment, for Duct Distribution of Air

Addison Products Co., Addison, Mich.
Air Products, St. Louis, Mo.
Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
American Coils Co., Farmingdale, N. J.
Bard Mfg. Co., Bryant, O.
Brown Products Corp., Union, N. J.
Carrier Corp., Syracuse, N. Y.
Continental Mfg. Co., Phoenix, Ariz.
Deering Engineering Co., Fort Lauderdale, Fla.
Emerson Electric Mfg. Co., St. Louis, Mo.
Fedders Corp., Maspeth, N. Y.
Forston Co., Houston, Tex.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Grove Furnace, Inc., Garden Grove, Calif.
Heat Controller, Inc., Jackson, Mich.
International Heater Co., Utica, N. Y.
Laurel Products, Inc., Laurel, Miss.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Mathes Co., Div. of Glen Alden Corp., Fort Worth, Tex.
McMillan Comfortaire Heat Pumps, Inc., Jacksonville, Fla.
Mueller Climatrol, Milwaukee, Wis.
Muncie Gear Works, Cordele, Ga.
Payne Co., The, La Puente, Calif.
Peerless Corp., Indianapolis, Ind.
Perfection Industries, Div. of Hupp Corp., Cleveland, O.
Revco, Inc., Deerfield, Mich.
Round Oak Co., Inc., Dowagiac, Mich.
Tuck-Aire Furnace Co., San Francisco, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
Typhoon Heat Pump Co., Div. Hupp Corp., Tampa, Fla.
Weatherking of Florida, Orlando, Fla.
Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Wright Mfg. Co., Phoenix, Ariz.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, REMOTE CONDENSER TYPE, FLOOR CABINET

Consisting of Blower, Filter, Humidifier, Direct-Fired Warm Air Furnace, Cooling Coll and Compressor with Connections to Remote Condenser, for Duct Distribution of Air

Carrier Corp., Syracuse, N. Y.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, ROOM TYPE, FLOOR CABINET

Consisting of Blower, Filter, Humidifier and Heating and Cooling Coils for Connection to Steam or Hot Water Supply and Remote Compressor-Condenser Unit or Cold Water Supply

Air Conditioning Engineering Co., Cambridge, Mass.
Airtherm Mfg. Co., St. Louis, Mo.
American Radiator & Standard Sanitary Corp., Plumbing and
Heating Div., New York, N. Y.
Bal-Air, Inc., Nashville, Tenn.
Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Drayer-Hanson Div. of National-U.S. Radiator Corp., Los Angeles, Calif.
Dunham-Bush, Inc., West Hartford, Conn.
International Mfg. Co., Oklahoma City, Okla.
Kritzer Radiant Coils, Inc., Batavia, Ill.
Marlo Coil Co., St. Louis, Mo.
McQuay, Inc., Minneapolis, Minn.
Modine Mfg. Co., Racine, Wis.
Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa.
Refrigeration Appliances, Inc., Chicago, Ill.
Rittling Corp., Buffalo, N. Y.
Trane Co., The, La Crosse, Wis.

Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
United States Air Conditioning Corp., Delaware, O.
Webster & Co., Warren, Camden, N. J.
Whitehall Engineering Co., Chicago, Ill.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
Young Radiator Co., Racine, Wis.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, SELF-CONTAINED, ABSORPTION REFRIGERATION

Consisting of Blower, Filter, Humidifier, Heating and Cooling Cycle Activated by Heat Generating Equipment, for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Arkla Air Conditioning Corp., Little Rock, Ark.
Day & Night Mfg. Co., La Puente, Calif.
Payne Co., The, La Puente, Calif.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
Weatherbuster Corp., Camden, Ark.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, SELF-CONTAINED, FLOOR CABINET

Consisting of Blower, Filter, Humidifier, Direct-Fired Warm Air Furnace, Cooling Coil and Compressor-Condenser Unit, for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.

Airtemp Div., Chrysler Corp., Dayton, O.
American Furnace Co., St. Louis, Mo.
American-Standard Air Conditioning Div., New York, N. Y.
Armstrong Furnace Co., Div. of National Union Electric Corp.,
Columbus, O.
Bard Mfg. Co., Bryant, O.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Bonair Div., Peerless Products Co., Philadelphia, Pa.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Iowa
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendota, Ill.
Crane Co., Chicago, Ill.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Day & Night Mfg. Co., La Puente, Calif.
Delco Appliance Div., General Motors Corp., Rochester, N. Y.
Dualtron Co., Pittsburgh, Pa.
Fraser & Johnston Co., San Francisco, Calif.
Gaffers & Sattler, Los Angeles, Calif.
Henry Furnace Co., Medina, O.
Home Furnace Co., Holland, Mich.
International Heater Co., Utica, N. Y.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Keith Furnace Co., Des Moines, Ia.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Majestic Co., Inc., Huntington, Ind.
Mayflower Air Conditioners, Inc., St. Paul, Minn.
Meyer Furnace Co., Peoria, Ill.
Mueller Climatrol, Milwaukee, Wis.
National-U.S. Radiator Corp., Johnstown, Pa.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Ralph Mfg. Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Sequoia Mfg. Co., San Carlos, Calif.
Shana Mfg., Inc., Chicago, Ill.
Skinner Heating & Ventilating Co. Div. Young Sales Corp., St. Louis, Mo.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southwest Mfg. Co., Aurora, Mo.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn, N. Y.
Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union

Electric Corp., Columbus, O. York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, SELF-CONTAINED, HORIZONTAL CABINET

Consisting of Blower, Filter, Humidifier, Direct-Fired Warm Air Furnace, Cooling Coil and Compressor-Condenser Unit, for Duct Distribution of Air

Armstrong Furnace Co., Div. of National Union Electric Corp., Columbus, O.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Cartury Engineering Corp., Cedar Rapids, Iowa
Crane Co., Chicago, Ill.
Day & Night Mig. Co., La Puente, Calif.
Fraser & Johnston Co., San Francisco, Calif.
Harvey-Hill, Inc., St. Louis, Mo.
Meyer Furnace Co., Peoria, Ill.
National-U.S. Radiator Corp., Johnstown, Pa.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Round Oak Co., Inc., Dowagiac, Mich.
Sequoia Mig. Co., San Carlos, Calif.
Stewart-Warner Corp., Heating and Air Conditioning Div.,
Lebanon, Ind.
Texas Products Mig. Co., Waco, Tex.
Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,
N. Y.
Ventil-Aire Corp., Ridgewood, N. Y.
Williams Oil-O-Matic Heating Co., Div. of National Union

# UNITARY AIR CONDITIONERS, YEAR 'ROUND,

Electric Corp., Columbus, O. Williamson Co., The, Cincinnati, O.

Consisting of Blower, Filter, Humidifier, Direct-Fired Warm Air Furnace and Cooling Coil for Connection to Remote Compressor-Condensor Unit, for Duct Distribution of Air

Condenser Unit, for Duct Distribution of Air

Air Conditioning Engineering Co., Cambridge, Mass.
Airtemp Div., Chrysler Corp., Dayton, O.
American Furnace Co., St. Louis, Mo.
Arizona Maintenance Co., Tucson, Ariz.
Armstrong Furnace Co., Div. of National Union Electric Corp.
Columbus, O.
Bar-Brook Mfg. Co., Inc., Shreveport, La.
Bard Mfg. Co., Bryant, O.
Besser Furnace and Air Conditioning Corp., Charlotte, N. C.
Bryant Mfg. Co., Indianapolis, Ind.
Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.
Carrier Corp., Syracuse, N. Y.
Century Engineering Corp., Cedar Rapids, Iowa
Cobell Industries, Inc., Cleburne, Tex.
Coleman Co., Inc., Wichita, Kans.
Conco Engineering Works, Heating and Air Conditioning Div.,
Mendota, Ill.
Crane Co., Chicago, Ill.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Day & Night Mfg. Co., La Puente, Calif.
Fraser & Johnston Co., San Francisco, Calif.
General Electric Co., Air Conditioning Dept., Tyler, Tex.
Henry Furnace Co., Medina, O.
Holly-General Co., Pasadena, Calif.
Home Furnace Co., Holland, Mich.
International Heater Co., Utica, N. Y.
Janitrol Heating and Air Conditioning Div., Surface Combustion
Corp., Columbus, O.
Lennox Industries Inc., Marshalltown, Ia.
Majestic Co., Inc., Huntington, Ind.
Meyer Furnace Co., Peoria, Ill.
Miami Products, Inc., Milwaukee, Wis.
Olsen Mfg. Co., The C. A., Elyria, O.
Oneida Heater Co., Inc., Oneida, N. Y.
Patten Co., J. V., Sycamore, Ill.
Peerless Corp., Indianapolis, Ind.
Round Oak Co., Inc., Dowagiac, Mich.
Rybolt Heater Co., Ashland, O.
Smith Corp., A. O., Permaglas Div., Kankakee, Ill.
Southwest Mfg. Co., Aurora, Mo.
Thermo-Products, Inc., North Judson, Ind.

Waterman-Waterbury Co., Minneapolis, Minn.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.
Williamson Co., The Cincinnati, O.
York Corp., Subsidiary of Borg-Warner Corp., York Pa.

# UNITARY AIR CONDITIONERS, YEAR 'ROUND, WINDOW TYPE, SELF-CONTAINED

Consisting of Blower, Filter, Cooling Coll, Compressor-Condenser
Unit and Means for Heating

Airtemp Div., Chrysler Corp., Dayton, O.
Amana Refrigeration, Inc., Amana, Ia.
Blissfield Mfg. Co., Blissfield, Mich.
Carrier Corp., Syracuse, N. Y.
Coolerator Div., McGraw-Belison Co., Albion, Mich.
Curtis Mfg. Co., Refrigeration Div., St. Louis, Mo.
Emerson Radio & Phonograph Corp., Jersey City, N. J.
Fedders Corp., Maspeth, N. Y.
General Electric Co., Major Appliance Div., Room Air Conditioner Dept., Louisville, Ky.
Kelvinator Div., American Motors Corp., Detroit, Mich.
King Refrigerator Co., Glendale, N. Y.
Philco Corp., Philadelphia, Pa.
RCA-Whirlpool, Central Home Air Conditioning Div., Whirlpool-Seeger Corp., St. Joseph, Mich.
Remington Air Conditioning Div., Remington Corp., Aubura,
N. Y.
Viking Mfg. Corp., Cleveland, O.
Westinghouse Electric Corp., Refrigeration Specialties Div.,
Springfield, Mass.
York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

### UNIT HEATERS

See Heaters, Unit

# UNITS, AIR CONDITIONER

See Unitary Air Conditioners

UNITS, AIR CONDITIONING, CENTRAL PLANT, RESIDENTIAL, WINTER ONLY, CONSISTING OF FURNACE, BLOWER, FILTER AND HUMODIFIER

See Furnaces, Forced Warm Air

# UNITS, HEATING AND VENTILATING, HORIZONTAL PACKAGE TYPE, DIRECT-FIRED

Aerovent Fan Co., Inc., Piqua, O. Campbell Co., E. K., Kansas City, Mo. Chicago Steel Furnace Co., Chicago, Ill.

### UNITS, HEAT RECOVERY, AIR TO AIR

Therm-O-Wheel, Inc., Long Island City, N. Y.

# UNITS, HEAT STORAGE FOR WARM AIR FURNACES

Hexdall Co., A. M., Morris, Ill.

# UNITS, MAKE-UP AIR, HEATING AND VENTILATING, HORIZONTAL PACKAGE TYPE, DIRECT-FIRED, GAS

For Furnishing Preheated Outdoor Air to Replace Exhausted Air

Aerovent Fan Co., Inc., Piqua, O. Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, O. Wing Mfg. Div., L. J., Aero Supply Mfg. Co., Inc., Linden, N. J.

#### UNITS, MAKE-UP AIR, HEATING AND VENTILATING, HORIZONTAL PACKAGE TYPE, DIRECT-FIRED, OIL

For Furnishing Preheated Outdoor Air to Replace Exhausted Air

Campbell Heating Co., Des Moines, Ia. Chicago Steel Furnace Co., Chicago, Ill.

Trane Co., The, La Crosse, Wis.

Tuck-Aire Furnace Co., San Francisco, Calif.

Typhoon Air Conditioning Co., Div. of Hupp Corp., Brooklyn,

#### UNITS, MAKE-UP AIR, HEATING AND VENTILATING, HORIZONTAL PACKAGE TYPE, STEAM OR HOT WATER

For Furnishing Preheated Outdoor Air to Replace Exhausted Air

Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua, O. Wing Mfg. Div., L. J., Aero Supply Mfg. Co., Inc., Linden, N. J.

### UNITS, MIXING, SOUND AND VOLUME CONTROL, FOR DOUBLE DUCT HIGH VELOCITY AIR CONDITIONING SYSTEMS

Air Devices, Inc., New York, N. Y.

Anemostat Corp. of America, New York, N. Y.

Barber-Colman Co., Rockford, Ill.

Buensod-Stacey, Inc., New York, N. Y.

Carrier Corp., Syracuse, N. Y.

Connor Engineering Corp., Danbury, Conn.

Hansson, Inc., Elot, Acoustical Div., New York, N. Y.

Imperial Damper Co., New York, N. Y.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,

Conn.

# USED SHEET METAL WORKING MACHINES

See Machinery, Sheet Metal, Rebuilt and Used

#### **VACUUM CLEANERS FOR FURNACES**

See Cleaners, Vacuum, Furnace

#### VALLEY FLASHING

See Roofing, Sheet Metal

# VALVES, FUEL OIL METERING

See Controls, fuel Oil Matering Valves

# **VALVES, GAS, AUTOMATIC SHUT OFF**

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Baso Inc., Milwaukee, Wis. Cam. Stat Inc., Div. Paul Henry Co., Los Angeles, Calif. Combustion Control Div., Electronics Corp., of America, Cambridge, Mass.
Detroit Controls, Div. of American-Standard, Detroit, Mich. Deutsch Controls Corp., Los Angeles, Calif.
Belipse Fuel Engineering Co., Rockford, Ill. Pisher Governor Co., Marshalltown, Ia.
General Controls Co., Glendale, Calif.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
Handley-Brown Co., Jackson, Mich.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Patrol Valve Co., Cleveland, O.
Penn Controls, Inc., Goshen, Ind.
Reynolds Gas Regulator Co., Anderson, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va.
Thermac Co., Corona, Calif.
White-Rodgers Co., St. Louis, Mo.

# VALVES, GAS, MOTORIZED

Combustion Control Div., Electronics Corp. of America, Cambridge, Mass.

Eclipse Fuel Engineering Co., Rockford, Ill.
General Controls Co., Glendale, Calif.

Keckley Co., O. C., Skokie, Ill.

Milwaukee Gas Specialty Co., Milwaukee, Wis.

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Robertshaw-Fulton Controls Co., Richmond, Va.

#### **VALVES, GAS PRESSURE REGULATING**

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. American Meter Co., Inc., Reliance Regulator Div., Alhambra, Calif. Bristol Co., Waterbury, Conn. Cam-StaT Inc., Los Angeles, Calif.
Davis Regulator Co., Chicago, Ill.
Defender Instrument & Regulator Co., Boody, Ill.
Detroit Controls Div. of American-Standard, Detroit, Mich.
Deutsch Controls Corp., Los Angeles, Calif.
Dewey Gas Furnace Co., Detroit, Mich.
Dockson Corp., Detroit, Mich.
Eclipse Fuel Engineering Co., Rockford, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Foster Engineering Div., General Controls Co., Warwick, R. I.
Gas & Oil Industry Laboratories, Inc., Irvington, N. J.
General Controls Co., Glendale, Calif.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long
Beach, Calif.
Harris Calorific Co., Cleveland, Ohio.
Hubbell Corp., Mundelein, Ill.
Major Controls Co., Corona, Calif.
Maxitrol Co., Detroit, Mich.
McCorkle Co., D. H., Berkeley, Calif.
Mercoid Corp., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Penn Controls, Inc., Goshen, Ind.
Reynolds Gas Regulator Co., Anderson, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va.
Rockwell Mfg. Co., Meter and Valve Div., Pittsburgh, Pa.
Thermac Co., Corona, Calif.
Thompson Products, Inc., Valve Div., Cleveland, O.
Weldit, Inc., Detroit, Mich.

# VALVES, GAS, SAFETY PILOT

A-P Controls Div., Controls Co. of America, Milwaukee, Wis.
Baso Inc., Milwaukee, Wis.
Detroit Controls Div. of American-Standard, Detroit, Mich.
General Controls Co., Glendale, Calif.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Robertshaw-Fulton Controls Co., Richmond, Va.
Thermac Co., Corona, Calif.
White-Rodgers Co., St. Louis, Mo.

# VALVES, HUMIDIFIER, FLOAT

Arklon Mfg. Co., Cleveland, O.
Fisher Governor Co., Marshalltown, Iowa.
Lincoln Brass Works, Detroit, Mich.
McDonnell & Miller, Inc., Chicago, Ill.
Maid-O'-Mist, Inc., Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Morey, Dan, Los Angeles, Calif.
Reitman Mfg. Co., Oakland, Calif.
Robert Mfg. Co., Los Angeles, Calif.
Skuttle Mfg. Co., Milford, Mich.
Viking Air Products Div., National-U. S. Radiator Corp.,
Cleveland, O.

# VALVES, REFRIGERATION, EXPANSION, THERMOSTATIC

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Alco Valve Co., St. Louis, Mo. Detroit Controls Div. of American-Standard, Detroit, Mich. Frigidaire Div., General Motors Corp., Dayton, Ohio. General Controls Co., Glendale, Calif. Sporlan Valve Co., St. Louis, Mo. Tenney Engineering, Inc., Union, N. J. X. I. Refrigerating Co., Chicago, Ill.

# VALVES, REFRIGERATION, WATER REGULATING, PRESSURE OR TEMPERATURE ACTUATED

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Alco Valve Co., St. Louis, Mo. Art Valve Co., Chicago, III. Bailey Co., Chas, M., San Francisco, Calif. Cash Co., A. W., Decatur, III. Foster Engineering Div., General Controls Co., Warwick, R. I. Frigidaire Div., General Motors Corp., Dayton, O. General Controls Co., Glendale, Calif. Klipfel Mfg. Co., Hamilton, Ohio.

Marsh Corp., Jas. P., Skokie, Ill. McIntire Co., Livingston, N. J. Mueller Brass Co., Port Huron, Mich. Mueller Co., Decatur, Ill. Penn Controls, Inc., Goshen, Ind. Powers Regulator Co., Skokie, Ill. Sarco Co., Inc., New York, N. Y.

# VALVES, RELIEF, HOT WATER HEATER, DOMESTIC, COMBINED PRESSURE AND TEMPERATURE ACTUATED

Cash Co., A. W., Decatur, Ill. Lincoln Brass Works, Detroit, Mich. Mansfield Sanitary, Inc., Perrysville, O. McDonnell & Miller, Inc., Chicago, Ill. Patrol Valve Co., Cleveland, O.

# VALVES, RELIEF, HOT WATER HEATER, DOMESTIC, PRESSURE ACTUATED

Burn-Rite Products Co., Yonkers, N. Y. Lincoln Brass Works, Detroit, Mich. McDonnell & Miller, Inc., Chicago, Ill. Mueller Co., Decatur, Ill. Patrol Valve Co., Cleveland, O.

# VALVES, RELIEF, HOT WATER HEATER, DOMESTIC, TEMPERATURE ACTUATED

Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif. Lincoln Brass Works, Detroit, Mich. Mansfield Sanitary, Inc., Perrysville, O. McDonnell & Miller, Inc., Chicago, Ill. Mueller Co., Decatur, Ill.

# VALVES, SHUT-OFF, HUMIDIFIER WATER LINE

Arizona Maintenance Co., Tucson, Ariz. Arklon Mfg. Co., Cleveland, O. Imperial Brass Mfg. Co., Chicago, Ill. Maid-O'-Mist Inc., Chicago, Ill.

# VALVES, SOLENOID

A-P Controls Div., Controls Co. of America, Milwaukee, Wis. Alco Valve Co., St. Louis, Mo. Atkomatic Valve Co., Inc., Indianapolis, Ind. Automatic Switch Co., Florham Park, N.J. Barksdale Valves, Los Angeles, Calif.
Baso Inc., Milwaukee, Wis. Clark-Cooper Co., Inc., Palmyra (Burl. County), N. J. Combustion Control Div., Electronics Corp. of America, Cambridge, Mass.
Davis Regulator Co., Chicago, Ill.
Detroit Controls Div. of American-Standard, Detroit, Mich. Eclipse Fuel Engineering Co., Rockford, Ill. Erickson Specialty Co., Cohoes, N. Y. Frick Co., Waynesboro, Pa.
General Controls Co., Glendale, Calif.
Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif.
Grove Regulator Co., Oakland, Calif.
Graveliator Electric Mfg. Co., Chicago, Ill.
Hunt Valve Co., Salem, Ohio. Jackes-Evans Mfg. Co., Erie, Pa.
Hubbell Corp., Mundelein, Ill.
Hunt Valve Co., Salem, Ohio. Jackes-Evans Mfg. Co., St. Louis, Mo.
Keckley Co., O. C., Skokie, Ill.
Lammert & Mann Co., Chicago, Ill.
Locke Regulator Co., Salem, Mass.
Marsh Corp., Jus. P., Skokie, Ill.
McDonnell & Miller, Inc., Chicago, Ill.
McQuay-Norris Mfg. Co., St. Louis, Mo.
Mercoid Corp., Chicago, Ill.
Minnespolis-Honeywell Regulator Co., Minneapolis, Minn.
Penn Controls, Inc., Goshen, Ind.
Ranco Inc., Columbus, O.
Sarco Co., Inc., New York, N. Y.
Sarcotherm Controls, Inc., New York, N. Y.
Sarcotherm Controls, Inc., New York, N. Y.

Skinner Electric Valve Div., Skinner Chuck Co., New Britain, Conn.
Sporlan Valve Co., St. Louis, Mo.
Square D Co., Lexington, Ky.
Square D Co., Industrial Controller Div., Milwaukee, Wis.
Supreme Electric Products Corp., Rochester, N. Y.
Thermac Co., Corona, Calif.
Webster Electric Co., Racine, Wis. (Fuel oil line)
White-Rodgers Co., St. Louis, Mo.

# VALVES, SWITCHING, HEAT PUMP

Alco Valve Co., St. Louis, Mo. General Controls Co., Glendale, Calif. Ranco Inc., Columbus, O. Sporlan Valve Co., St. Louis, Mo.

#### VANE RAILS

See Rails, Vane

# VANES, DUCT TURNING

Anemostat Corp. of America, New York, N. Y.
Barber-Colman Co., Rockford, Ill.
Cain Mfg. Inc., Birmingham, Ala.
Duro-Dyne Corp., Farmingdale, N. Y.
Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
Titus Mfg. Corp., Waterloo, Iowa.
Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,
Conn.

#### VAPOR BARRIERS

See Barriers, Vapor, Crawi Space

#### VENT CAPS

See Caps, Fuel Tank, Vent

# VENTILATION SYSTEM FITTINGS FOR AUTOMOBILE EXHAUST

See Fittings, Exhaust, Garage

# **VENTILATOR AND FILTER UNITS, WINDOW**

Airgard Mfg. Co., Chicago, Ill.
Berns Air King Corp., Chicago, Ill.
Frigid, Inc., Brooklyn, N. Y.
Reed Unit-Fans, Inc., New Orleans, La.
Unified Air Conditioner Co., Duluth, Minn.
United States Register Co., Battle Creek, Mich.
Utility Appliance Corp., Los Angeles, Calif.

# **VENTILATORS, CRAWLSPACE**

Adams Co., The, Dubuque, Ia.
Air Control Products, Inc., Coopersville, Mich.
Appleton Supply Co., Inc., Appleton, Wis.
Construction Specialties, Inc., Cranford, N. J.
Donley Bros. Co., Cleveland, O.
Hohmann & Barnard, Inc., New York, N. Y.
Inland Steel Products Co., Milwaukee, Wis.
Leslie Welding Co., Inc., Chicago, Ill.
United States Register Co., Battle Creck, Mich.

# **VENTILATORS, ROOF, GRAVITY**

Accurate Sheet Metal & Mfg. Works, Chicago, Ill. Air Control Products, Inc., Coopersville, Mich. Air Devices, Inc., New York, N. Y. Airjet Ventilator Co., San Clemente, Calif. Allen Cooler & Ventilator Inc., Rochester, Mich. American Foundry & Furnace Co., Bloomington, Ill. Ammerman Co., Inc., Stillwater, Minn. Appleton Supply Co., Inc., Appleton, Wis. Arex Co., Chicago, Ill.

Badger Furnace Pipe Co., Madison, Wis. Bowman Steel Corp., Pittsburgh, Pa.
Breidert Co., G. C., San Fernando, Calif.
Brisk Metal Products Div., Brisk Waterproofing Co., Ridgefield, N. I. held, N. J.
Burt Mfg. Co., Akron, Ohio
Chicago Blower Corp., Franklin Park, Ill.
Clay Equipment Corp., Cedar Falls, Iowa.
Colt Ventilation of America, Inc., Los Angeles, Calif. Damp-Vent Co., Bettendorf, Ia.
Donaldson Power Roof Ventilator Co., Los Angeles, Calif.
Donley Bros. Co., Cleveland, O.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Exit-Aire Ventilating Co., Pacoima, Calif. Fingles Co., Baltimore, Md.
Gallaher Co., Omaha, Nebr.
Garland Mfg. Co., Saco, Maine Garland Mig. Co., Saco, Maine
Gehri Sheet Metal Co., Tacoma, Wash.
Greenheck Fan and Ventilator Corp., Schofield, Wis.
Hirschman-Pohle Co., Inc., LeRoy, N. Y.
Inland Steel Products Co., Milwaukee, Wis.
International Metal Products Co., Phoenix, Ariz.
Iona Ventilator Co., Inc., Philadelphia, Pa.
Jordan & Co., Inc., Paul R., Indianapolis, Ind. Jordan & Co., Inc., Paul R., Indianapolis, Ind.
Klauer Mg. Co., Dubuque, Iowa.
LaCrosse Steel Roofing & Corrugating Co., LaCrosse, Wis.
Leslie Welding Co., Inc., Chicago, Ill.
Los Angeles Sheet Metal Mg. Co., Inc., Los Angeles, Calif.
Lumm Co., A. H., Toledo, Ohio. Lumm Co., A. H., Toledo, Ohio.

M & E Mfg. Co., Indianapolis, Ind.

Maple City Furnace Co., Monmouth, Ill.

Marco Co., East Orange, N. J.

Martin Fan & Blower Co., Chicago, Ill. Midwest Airmoving Corp., Willoughby, O. Moeschl-Edwards Corrugating Co., Inc., Cincinnati, Ohio. Muckle Mfg. Co., Owatonna, Minn.
Octagon Ventilator Co., Chicago, Ill.
Penn Ventilator Co. Inc., Philadelphia, Pa.
Pennsylvania Wire Glass Co., Philadelphia, Pa. Pennsylvania Wire Glass Co., Philadelphia, Pa. Perkinson, William J., Chicago, Ill. Plasteel Products Corp., Washington, Pa. Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo. Ralph Mfg. Co., Inc., Wadsworth, Ohio. Riggin Metal Products, Inc., Kankakee, Ill. Robertson Co., H. H., Pittsburgh, Pa. Romla Co., Los Angeles, Calif. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. Ryniker Steel Products Co., Billings, Mont. Sheet Metal Mfg. Co., Inc., Brooklyn, N. Y. Simpson Co., Oakland, Calif. Sioux Steel Co., Sioux Falls, S. D. Southbridge Roofing Co., Inc., Southbridge, Mass. Steelcraft Mfg. Co., Rossmoyne, O. Swartwout Fabricators, Inc., Kokomo, Ind. Steelcraft Mfg. Co., Rossmoyne, O.
Swartwout Fabricators, Inc., Kokomo, Ind.
Thor Metal Products Co., Inc., Syracuse, N. Y.
Tierney Rotor Ventilator Co., Minneapolis, Minn.
Tiffin Art Metal Co., Tiffin, Ohio.
Triangle Engineering Co, Hoston, Tex.
United Sheet Metal Co., Inc., Columbus, O.
Uno Ventilator Co., Malden, Mass.
Van Noorden Co., E., Boston, Mass.
Walker Mfg. & Sales Corp., St. Joseph, Mo.
Warner Ventilator Co., LaGrange, Ind.
Wasco Products, Inc., Cambridge, Mass.
Waverly Heating Supply Co., Beverly, Mass.

# VENTILATORS, ROOF, POWER, MUSHROOM TYPE

Acme Engineering & Mfg. Corp., Muskogee, Okla.
Air Conditioning Engineering Co., Cambridge, Mass.
Aladdin Heating Corp., San Leandro, Calif.
Allen Cooler & Ventilator Inc., Rochester, Mich.
American Coolair Corp., Jacksonville, Fla.
American-Standard Industrial Div., Detroit, Mich.
American Warming & Ventilating Co., Toledo, O.
Ammerman Co., Inc., Stillwater, Minn.
Arden Airoflo Engineering, Inc., El Monte, Calif.
Bertram Co., Harvey P., Cincinnati, O.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, O.
Carnes Corp., Verona, Wis.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Consolidated General Products, Inc., Houston, Tex. (Plastic)
Cook Co., Loren, Berea, O.
De Bothezat Fans Div., American Machine and Metals, Inc.,
East Moline, Ill.

Detroit Blower Corp., Franklin Park, Ill.
Donaldson Power Roof Ventilator Co., Los Angeles, Calif.
Exit-Aire Ventilating Co., Pacoima, Calif.
Gallaher Co., Omaha, Nebr.
Greenheck Fan and Ventilator Corp., Schofield, Wis.
Higgins Metal Products Co., The, Swanton, O.
Hirschman-Pohle Co., Inc., Le Roy, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill.
International Engineering, Inc., Dayton, O.
Iona Ventilator Co., Inc., Philadelphia, Pa.
Iron Lung Ventilator Co., Cleveland, O.
Jenn Air Products Co., Indianapolis, Ind.
Jordan & Co., Inc., Paul R., Indianapolis, Ind.
King Co., Owatonna, Minn.
Martin Fan & Blower Co., Chicago, Ill.
Midwest Airmoving Corp., Willoughby, O.
Muckle Mfg. Co., Owatonna, Minn.
New York Blower Co., Chicago, Ill.
Peerless Electric Div., The H. K. Porter Co., Warren, O.
Penn Ventilator Co., Inc., Philadelphia, Pa.
Power Line Fan Co., Div. of Chelsea Products Inc., Plainfield,
N. J.
Reynolds Ventilator Mfg. Corp., Chicago, Ill.
Robinson Clay Product Co., Akron, O.
South Bend Air Products, Inc., South Bend, Ind.
Structa-Lung Co., Willoughby, O.
Swartwout Fabricators, Inc., Kokomo, Ind.
Triangle Engineering Co., Houston, Tex.
Trane Co., The LaCrosse, Wis.
Uno Ventilating Co., Malden, Mass.
Van Noorden Co., E., Boston, Mass.
Western Engineering & Mfg. Co., Venice, Calif.
Wind-Way Fan & Ventilator Co., New Orleans, La.
Wing Mfg. Div., L. J., Aero Supply Mfg. Co., Inc., Linden,
N. J.

# VENTILATORS, ROOF, POWER, PENTHOUSE TYPE

Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Acme Engineering & Mfg. Corp., Muskogee, Okla.
Aerovent Fan Co., Piqua, Ohio.
Airjet Ventilator Co., San Clemente, Calif.
Aladdin Heating Corp., Oakland, Calif.
American Coolair Corp., Jacksonville, Fla.
American Coolair Corp., Jacksonville, Fla.
American Warming & Ventilating Co., Toledo, O.
Ammerman Co., Inc., Stillwater, Minn.
Arex Co., Chicago, Ill.
Arizona Maintenance Co., Tucson, Ariz.
Atmos Corp., Chicago, Ill.
Bar-Brook Mfg. Co., Inc., Shreveport, La.
Bertram Co., Harvey P., Cincinnati, Ohio.
Bishop Co., R. H. Champaign, Ill.
Bowman Steel Corp., Pittsburgh, Pa.
Breidert Co., G. C., San Fernando, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Carnes Corp., Verona, Wis.
Century Fan & Ventilator Co., Inc., Stamford, Conn.
Chelsea Fan & Blower Co., Inc., Plainfield, N. J.
Chicago Blower Corp., Franklin Park, Ill.
Clarage Fan Co., Kalamazoo, Mich.
Clay Equipment Corp., Cedar Falls, Iowa.
Cook Co., Loren, Berea, Ohio.
Dana Fan & Blower Corp., Cincinnati, Ohio.
Davidson Hyduty Roof Fan Co., Newton, Mass.
DeBothezat Fans Div., American Machine & Metals, Inc., East Moline, Ill.
Diehl Mfg. Co., Somerville, N. J.
Electrovent Fan & Mfg. Co., Chicago, Ill.
Empire Ventilation Equipment Co., Long Island City, N. Y.
Exit-Aire Ventilating Co., Pacoima, Calif.
Fingles Co., Baltimore, Md.
Fingles Co., Baltimore, Md.
Fingles Co., Baltimore, Md.
Hartzell Propeller Fan Co., Div. Castle Hills Corp., Piqua,
Ohio.
Hayes Furnace Mfg. & Supply Co., Los Angeles, Calif.
Hunter Div., Robbins & Myers, Inc., Memphis, Tenn.
Ilg Electric Ventilating Co., Chicago, Ill.
International Engineering, Inc., Dayton, Ohio.
Iona Ventilator Co., Inc., Philadelphia, Pa.
Jenn Air Products Co., Indianapolis, Ind.
Joy Mfg. Co., Pittsburgh, Pa.
King Co., Owatonas, Minn.
Los Angeles Sheet Metal Mfg. Co., Inc., Los Angeles, Calif.

Lumm Co., A. H., Toledo, Ohio.

M & E Mfg. Co., Indianapolis, Ind.
Martin Fan & Blower Co., Chicago, Ill.
Mountain States Equipment Co., Denver, Ohio.
Muckle Mfg. Co., Owatonna, Minn.
New York Blower Co., Chicago, Ill.
Peerless Electric Div., The H. K. Porter Co., Warren, Ohio.
Penn Ventilator Co., Inc., Philadelphia, Pa.
Perkinson, William J., Chicago, Ill.
Power Line Fan Co., Div. of Chelsea Products Inc., Plainfield,
N. J.
Puhl & Hepper Mfg. Co., Inc., St. Louis, Mo.
Rich Fan Mfg. Co., Phil, Houston, Tex.
Robbins & Myers, Inc., Springfield, Ohio.
Robertson Co., H. H., Pittsburgh, Pa. (Round-Rectangular)
Romla Co., Los Angeles, Calif.
Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y.
Sargent EnginAiring Co., Cleveland, O.
South Bend Air Products, Inc., South Bend, Ind.
Steelcraft Mfg. Co., Rossmoyne, O.
Swartwout Fabricators, Inc., Kokomo, Ind.
Tennessee Fabricating Co., Memphis, Tenn.
Trade-Wind Div., Robbins & Myers, Inc., Pico Rivera, Calif.
Triangle Engineering Co., Houston, Tex.
Uno Ventilator Co., Malden, Mass.
Wasco Products, Inc., Cambridge, Mass.
Wasco Products, Inc., Cambridge, Mass.
Wasco Products, Inc., Cambridge, Mass.
Waverly Heating Supply Co., Beverly, Mass.
Western Engineering Co., Detroit, Mich.

### VENT SYSTEMS, LAUNDRY DRYER

Air Control Products, Inc., Coopersville, Mich. Badger Furnace Pipe Co., Madison, Wis. Cole-Sewell Engineering Co., St. Paul, Minn. Excelsior Steel Furnace Co., Chicago, Ill. Penn Supply & Metal Corp., Philadelphia, Pa. St. Clair Metal Products Co., Cleveland, O. Wilder Products Co., Springfield, O.

#### VIBRATION ISOLATORS

See Bases and Pads

#### VOLTMETERS, AMMETERS, WATTMETERS, ETC.

Daystrom-Weston Sales Div., Daystrom Inc., Newark, N. J. Simpson Electric Co., Chicago, Ill.

# WALL HEATERS

See Furnaces, Forced Warm Air, Wall; Furnaces, Warm Air, Gravity

#### WASHERS, AIR

Air Cooling Engineering Co., Evanston, Ill.
Airfan Engineering Co., Los Angeles, Calif.
Air & Refrigeration Corp., New York, N. Y.
Air Stream Filter Corp., St. Louis, Mo.
Alton Mfg. Co., Dallas, Texas.
American-Standard Industrial Div., Detroit, Mich.
Bahnson Co., Winston-Salem, N. C.
Bayley Blower Co., Milwaukee, Wis.
Buensod-Stacey, Inc., New York, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Carrier Corp., Syracuse, N. Y.
Carrier Corp., Syracuse, N. Y.
Clarage Fan Co., Kalamazoo, Mich.
Columbus Heating & Ventilating Co., Columbus, Ohlo.
Comfort Products Inc., Dallas, Texas.
Continental Air Filters, Inc., Louisville, Ky.
Ducon Co., The, Mineola, N. Y.
KVS Industries Inc., North Sacramento, Calif.
Moustain States Equipment Co., Denver, Colo.
Spray Engineering Co., Burlington, Mass.
Western Blower Co., Seattle, Wash.

# WASHERS, FUME

Buffalo Forge Co., Buffalo, N. Y. Heil Process Equipment Corp., Cleveland, O. Industrial Plastic Fabricators, Inc., Norwood, Mass. (Plastic) Mahon Co., R. C., Detroit, Mich.
Schutte and Koerting Co., Cornwell Heights, Bucks Co., Pa.

# WATER HEATERS, DOMESTIC

See Heaters, Water, Domestic

# WATER HEATING COILS, FIRE POT

See Colls, Fire Pot, Domestic Hot Water

#### WATERPROOFING MATERIALS

Anti-moisture penetrating and rust preventive

Arco Co., Cleveland, O.
Armstrong Cork Co., Lancaster, Pa.
Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.
Blue Ridge Talc Co., Henry, Va.
Bowman Steel Corp., Pittsburgh, Pa.
Cabot, Inc., Samuel, Boston, Mass.
Calbar Paint & Varnish Co., Philadelphia, Pa.
Carboline Co., St. Louis, Mo.
Carey Mfg. Co., Philip, Lockland, Cincinnati, Ohio.
Carter Paint Co., Inc., Liberty, Ind.
Cheesman-Elliot Co., Inc., Brooklyn, N. Y.
Chemical Coatings & Engineering Co., Inc., Media, Pa.
Coopers Creek Chemical Corp., West Conshohocken, Pa.
Fibreboard Paper Products Corp., San Francisco, Calif.
Flintkote Co., New York, N. Y.
Glidden Co., Cleveland, Ohio.
Hague & Co., Inc., Alfred, Div. of Lacquer & Chemical Corp.,
Brooklyn, N. Y.
Horn Co., Inc., A. C., Long Island City, N. Y.
Johns-Manville, New York, N. Y.
Koppers Co., Inc., Pittsburgh, Pa.
Magic Chemical Co., Brockton, Mass. (Plastic)
Metropolitan Refining Co., Inc., Long Island City, N. Y.
Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers
Div., St. Paul, Minn.
Nebel Mfg. Co., Cleveland, Ohio.
North American Mogul Products Co., Cleveland, O.
Pittsburgh Coke & Chemical, Summit, Ill.
Presstite Div., American-Marietta Co., St. Louis, Mo.
Products Research Co., Los Angeles, Calif.
Reilly Tar & Chemical Corp., Indianapolis, Ind.
Robertson Co., H. H., Pittsburgh, Pa.
Ruberoid Co., New York, N. Y.
Sonneborn Sons, Inc., L., New York, N. Y.
Sonthport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc.,
Savannah, Ga.
Speco, Inc., Cleveland, O.
Trusson Laboratories, Detroit, Mich.
Wasco Products, Inc., Cambridge, Mass.
West Chester Chemical Co., West Chester, Pa.
Whitlam Mfg. Co., J. C., Wadsworth, O.
Wilbur & Williams Co., Norwood, Mass. (Zinc)
X-Pando Corp., Long Island City, N. Y.

# WATTMETERS, ETC.

See Voltmeters, Etc.

# WEATHERVANES

Lynch & Sons, Kenneth, Wilton, Conn. Miller & Doing, Brooklyn, N. Y. Tennessee Fabricating Co., Memphis, Tenn.

# WELDERS, ARC

Air Reduction Sales Co., New York, N. Y. (ac and dc)
Brennen, Bucci & Weber, Inc., New York, N. Y. (ac)
Chemetron Corp., Chicago, Ill. (ac and dc)
Electric Arc, Inc., Newark, N. J. (ac and dc)
Ergolyte Mfg. Co., Philadelphia, Pa.
Expert Welding Machine Co., Detroit, Mich. (ac and dc)
Fern, Ralph, Scranton, Pa. (ac)
General Dynamics Corp., Liquid Carbonic Div., Chicago, Ill.
(ac and dc)

Hammett Electric Míg. Co., Kansas City, Kans.
Harnischfeger Corp., Milwaukee, Wis. (Ac & dc)
Hobart Bros. Co., Troy, Ohio, (Ac & dc)
Holup Corp., Div. National Cylinder Gas Co., Chicago, Ill.
Lincoln Electric Co., Cleveland, Ohio.
Marquette Míg. Co., Inc., Minneapolis, Minn. (ac)
Metal & Thermit Corp., Rahway, N. J. (ac & dc)
Mid-States Welder Míg. Co., Inc., Appleton, Wis. (ac & dc)
Miller Electric Míg. Co., Inc., Appleton, Wis. (ac & dc)
National Electric Welding Machine Co., Bay City, Mich.
Nelson Specialty Welding Equipment Corp., San Leandro,
Calif. (Stud welder)
Nelson Stud Welding Div. Gregory Industries, Inc., Lorain, Ohio.
(dc)
Peer, Inc., Benton Harbor, Mich. (ac and dc)
Precision Welder Míg. Co., Chicago, Ill.
Sight Feed Generator Co., W. Alexandria, O. (ac & dc)
Trindl Products, Ltd., Chicago, Ill. (ac)
Westinghouse Electric Corp., Pittsburgh, Pa. (ac & dc)

### WELDERS, PLASTIC MATERIALS

See Guns, Plastic Welding

#### WELDERS, PROJECTION

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Banner Welder, Inc., Milwaukee, Wis.
Eisler Engineering Co., Newark, N. J.
Electric Arc, Inc., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
National Electric Welding Machines Co., Bay City, Mich.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Pontiac, Mich.
Raytheon Co., Industrial Apparatus Div., Manchester, N. H.
Sciaky Bros., Inc., Chicago, Ill.
Swift Ohio Corp., Kenton, O.
Taylor-Winfield Corp., Warren, Ohio.

# WELDERS, RESISTANCE

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Ampower Products Co., Oak Lawn, Ill.
Banner Welder, Inc., Milwaukee, Wis.
DoALI, Co., Des Plaines, Ill.
Eisler Engineering Co., Newark, N. J.
Eisler Engineering Co., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
Grob, Inc., Grafton, Wis.
Micro Products Co., Chicago, Ill.
Miller Electric Mfg. Co., Inc., Appleton, Wis.
National Electric Welding Machines Co., Bay City, Mich.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Pontiac, Mich.
Royson Engineering, Hatboro, Pa.
Sciaky Bros., Inc., Chicago, Ill.
Swift Ohio Corp., Kenton, O.
Taylor-Winfield Corp., Warren, Ohio.
Weldex Div. The Metal Craft Co., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.

# WELDERS, SEAM

Acme Electric Welder Co., Los Angeles, Calif.
Acro Welder Mfg. Co., Milwaukee, Wis.
Banner Welder, Inc., Milwaukee, Wis.
Eisler Engineering Co., Newark, N. J.
Electric Arc, Inc., Newark, N. J.
National Electric Welding Machines Co., Bay City, Mich.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Pontiac, Mich.
Sciaky Bros., Inc., Chicago, Ill.
Swift Ohio Corp., Kenton, O.
Taylor-Winfield Corp., Warren, Ohio.
Weldex Div. The Metal Craft Co., Detroit, Mich.

# WELDERS, SPOT

Acme Electric Welder Co., Los Angeles, Calif. Acro Welder Mfg. Co., Milwaukee, Wis. Alphil Spot Welder Mfg. Corp., Brooklyn, N. Y. Ampower Products Co., Oak Lawn, Ill.
Appliances Engineering, Chicago, Ill. (Portable)
Banner Welder, Inc., Milwaukee, Wis.
Chemetron Corp., Chicago, Ill.
Duro-Dyne Corp., Farmingdale, N. Y. (Portable)
Eisler Engineering Co., Newark, N. J.
Electric Arc, Inc., Newark, N. J.
Expert Welding Machine Co., Detroit, Mich.
Fern, Ralph, Scanton, Pa.
General Dynamics Corp., Liquid Carbonic Div., Chicago, Ill.
Graham Mfg. Corp., Needham Hts., Mass.
Hobart Bros. Co., Troy, O.
K.S.M. Products Inc., Merchantville, N. J.
Linde Co., Div. Union Carbide Corp., New York, N. Y.
Merit Co., Chicago, Ill.
Mid-States Welder Mfg. Co., Chicago, Ill. (Portable)
Miller Electric Mfg. Co., Chicago, Ill.
Peer, Inc., Benton Harbor, Mich.
Progressive Welder Sales Co., Pontiac, Mich.
Raytheon Co., Industrial Apparatus Div., Manchester, N. H.
Schott Metal Products Co., Akron, O. (Hand model)
Sciaky Bros., Inc., Chicago, Ill.
Swift Ohio Corp., Kenton, O.
Taylor-Winfield Corp., Warren, Ohio.
Weldex Div. The Metal Craft Co., Detroit, Mich.
Westinghouse Electric Corp., Pittsburgh, Pa.

# WELDERS, ULTRASONIC

Sonobond Corp., Subsidiary of Aeroprojects, Inc., West Chester, Pa.

#### WELDING FLUX

See Flux, Welding

### WELDING ROD

See Rod, Welding

# WELDING STUDS FOR CURTAIN WALL PANELS

See Studs, Welding

#### WELDING TORCHES

See Torches, Brazing, Cutting, Weiding

#### WHEELS, BLOWER

Air Controls, Inc., Div. of Cleveland Heater Co., Cleveland, Ohio. Airfaa Engineering Co., Los Angeles, Calif. Ammerman Co., Inc., Stillwater, Minn. Barry Blower Co., Minneapolis, Minn. Bayley Blower Co., Milwaukee, Wis. Beetle Plastics Corp., Carl N., Fall River, Mass. (Plastic) Brookside Corp., McCordsville, Ind. Brundage Co., Kalamazoo, Mich. Carolina Blower Co., Inc., Greensboro, N. C. Champion Blower & Forge Co., Lancaster, Pa. Chicago Blower Corp., Franklin Park, Ill. Clarage Fan Co., Kalamazoo, Mich. Connecticut Blower Co., Hartford, Conn. Denbo Engineering and Sales Co., Inc., Indianapolis, Ind. (Plastic) Gaffers & Sattler, Los Angeles, Calif. Garden City Fan Co., Niles, Mich. General Blower Co., Subsidiary of Ilg Electric Ventilating Co., Morton Grove, Ill.

Jan-Air, Inc., Richmond, Ill.
Lau Blower Co., Dayton, Ohio. Mamco Corp., Racine, Wis.
Martin Fan & Blower Co., Chicago, Ill. Mayne Products Co., Dayton, Ohio. Moore Co., Marceline, Mo. Morrison Products, Inc., Cleveland, Ohio. Peerless Electric Div., The H. K. Porter Co., Warren, Ohio. R & R Metal Products, Inc., Chicago, Ill. Revoor Inc., Carpentersville, Ill. Rebinson Ventilating Co., Zelienople, Pa.

Torrington Mfg. Co., Torrington, Conn.
Triangle Mfg. Co., Oshkosh, Wis.
United States Air Conditioning Corp., Delaware, O.
Utility Fan Corp., Div. of Utility Appliance Corp., Los Angeles,
Calif.
Vernco Corp., Columbus, Ind.
Viking Air Products Div., National-U. S. Radiator Corp., Cleveland, O.
Western Blower Co., Seattle, Wash.
Westinghouse Electric Corp., Sturtevant Div., Boston, Mass.

# WINDOW AIR CONDITIONER COVERS

See Protectors, Window Air Conditioner

## WINDOW COOLING UNITS

See Unitary Air Conditioners, Summer, Self-Contained, Window Type

# WINDOW PANELS FOR AIR CONDITIONERS

See Panels, Window Air Conditioner

# WINDOWS, METAL, HOLLOW OR EXTRUDED

Adams Co., Dubuque, Iowa.
Alumatic Corp. of America, Milwaukee, Wis.
Fenestra Inc., Detroit, Mich.
General Bronze Corp., Garden City, L. I., N. Y.
Inland Steel Products Co., Milwaukee, Wis. (Basement windows)
International Steel Co., Evansville, Ind.
Jamestown Metal Corp., Jamestown, N. Y.
Kawneer Co., Niles, Mich.
New Monarch Machine & Stamping Co., Des Moines, Ia.
Perkinson, William J., Chicago, Ill.
Republic Steel Corp., Truscon Div., Youngstown, O.
Republic Steel Corp., Cleveland, O.
Reynolds Metals Co., Richmond, Va.
Russell Co., F. C., Columbiana, O.
Steelcraft Mfg. Co., Rossmoyne, O.

#### WINTER AIR CONDITIONERS

See Furnaces, Forced Air

# WINTER PROTECTIVE COMPOUNDS

See Compounds, Winter Protective, Pump

# WIRE

Allegheny Ludlum Steel Corp., Pittsburgh, Pa. (Stainless) Aluminum Co. of America, Pittsburgh, Pa. (Aluminum) American Brass Co., Waterbury, Conn. (Copper)
American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio. (Steel) Armoo Steel Corp., Middletown, Ohio. (Stainless steel) Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (Lead, tin, cadmium, zinc) Berger Div., Republic Steel Corp., Canton, Ohio. (Galv.) Bethlehem Steel Co., Bethlehem, Pa. (Plain, galvanized, steel and Chase Brass & Copper Co., Inc., Waterbury, Conn. (Copper) Copperweld Steel Co., Wire and Cable Div., Glassport, Pa. (Copper covered steel) Crucible Steel Co. of America, Pittsburgh, Pa. (Stainless steel and titanium) Division Lead Co., Summit, Ill. (Lead, tin)
Hussey & Co., C. G., Pittsburgh, Pa. (Copper)
International Nickel Co., Inc., New York, N. Y. (Nickel & nickel Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel) Jones & Laughlin Steel Corp., Stainless and Strip Div., Detroit, Mich. Kaiser Aluminum & Chemical Sales, Inc., Oakland, Calif. (Aluminum) Laclede Steel Co., St. Louis, Mo. (Steel)
Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass. (Clad metal) Mass. (Clad metal)
National Lead Co., New York, N. Y. (Lead & tin)
Nichols Wire & Aluminum Co., Davenport, Ia. (Aluminum)
Page Steel & Wire Div., American Chain & Cable Co., Inc.,
Monessen, Pa. (Carbon steel & stainless steel)
Republic Steel Corp., Cleveland, Ohio (Steel)
Reynolds Metals Co., Richmond, Va. (Aluminum)
Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala. United Wire & Supply Corp., Providence, R. I. (Aluminum, copper & copper base alloy) Youngstown Sheet & Tube Co., Youngstown, Ohio. (Steel)

# WIRE, ELECTRIC HEATING

See Cable, Electric Heating

#### WIRE GLASS

See Glass, Wire

#### WIRING MACHINES

See Machines, Wiring

YEAR 'ROUND UNITS See Unitary Air Conditioners, Year 'Round

#### ZONE CONTROLS

See Controls; Control System Kits

# Section of

# American Artisan

# 1960 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

PART 3-ALL TRADE NAMES

- AAF-Air Filters. American Air Filter Co., Inc., Louisville, Ky.

  ABC—Blower-Washer Units. American
- ABC—Blower Corp., Detroit, Mich.
  ABC—Oil Burners. Automatic Burner
  Corp., Chicago, Ill.
  ACB—Metal Protecting Paint. Tropical
  Paint Co., Cleveland, Ohio.
  A-C Board—Non-Metallic Sheets. Philip
- Carey Mfg. Co., Lockland, Cincinnati, Ohio
- AM-Solder. Alpha Metals, Inc., Jersey
- City, N. J. A&R-Duct Dampers, Louvers and Shutters. Air & Refrigeration Corp., New York, N. Y. ASMC-Flux. Farrelloy Co., Philadel-
- phia, Pa.
- c—Relays, Switches, Thermostats and Welding Timers. Automatic Timing & Controls, Inc., King of Prussia,
- AW-Plates, Sheets. Alan Wood Steel Co., Conshohocken, Pa.
- AX-Oil Burners. Aldrich Co., Wyoming, Ill.
- Abrams—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Brush Co., Worcester, Mass. Abr-A-Saw—Sheet Metal Saws. Collins
- Machinery Corp., Los Angeles, Calif. Abso-Dry-Refrigerant Dehydrator. Henry Valve Co., Melrose Park, Ill. Academy-Heating and Ventilating Sys-
- tems for Classrooms. Williams Fur-nace Co., Buena Park, Calif. Ace—Damper Regulators. Martens &
- Stormoen Co., West Quincy, Mass. cid-Proof—Insulating Cement. Quig-Acid-Proof—Insulating Ce ley Co., New York, N.Y Acousti-duct-Sound Absorbers for Duct
- Sections. General Sound Control, Inc., Los Angeles, Calif. Acoustilite-Insulation. Insulite Div.,
- Minnesota and Ontario Paper Co., Minneapolis, Minn.
- Acragage-Pressure Indicating Gage. International Register Co., Chicago, Ill. cratherm—Thermostats. Minneapolis-Acratherm-Thermostats. Honeywell Regulator Co., Minneapo-
- lis, Minn. Acro-Controls. Robertshaw-Fulton Con-
- trols Co., Richmond, Va.

  Actane—Gas Water Heaters. M. M.

  Hedges Mfg. Co., Inc., Chattanooga,
- Adacast-Refractories. Botfield Refractories Co., Philadelphia, Pa.
- Adamant—Insulating Cement, Refrac-tories. Botheld Refractories Co., Philadelphia, Pa.

  Adapatch—Refractories. Botfield Refrac-
- tories Co., Philadelphia, Pa.
- Adapto-Gas and Oil Furnaces. Mammoth Furnace Co., Minneapolis, Minn. Adapto-Ignition Transformers. Thermolok Mfg. Co., Inc., Franklin Sq., L.I., N.Y.

- Adaptomatic—Air Conditioning Units. Fedders Corp., Maspeth, N. Y.
- Ada-Stic—Insulating Cement. Bot Refractories Co., Philadelphia, Pa. Botfield
- Adheco-Adhesive Tape for Scaling Duct Joints and Protective Paper for Polished Metal Surfaces. Adhesive Tape Corp., Brooklyn, N. Y. Adjusta-Duct—Ducts and Duct Accessories. Duc-Pac Inc., East Long-
- meadow, Mass.
- Aerisweld-Welding Rod. Lincoln Elec-tric Co., Cleveland, Ohio.
- Aerocor-Furnace Insulation. Corning Fiberglas Corp., New York,
- Aerofans-Fans. Emerson-Pryne Co., Pomona, Calif. Aerofil—Filters. Besser Furnace and Air Conditioning Corp., Charlotte, N.C.
- Aerofuse-Air Diffusers, Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn. Aerolag—Duct Insulation. Johns-Man-
- ville, New York, N. Y.
  Aerolux—Oil Furnaces. S. T. Johnson
  Co., Oakland, Calif.
- Aeromaster—Fans. Koppers Co., Inc., Metal Products Div., Baltimore, Md. Aeromatic—Furnaces. United Air Heat-
- ers, Inc., Seattle, Wash. eromatic—Roof Ventilators. Octagon Aeromatic—Roof Ventilators. Ventilator Co., Chicago, Ill.
- Aeropel-Kitchen Exhaust Fans, American-Standard Industrial Div., Detroit, Mich.
- Aeroplane-Ventilators, Paul R. Jordan & Co., Inc., Indianapolis, Ind.
- Aeroplex-Blowers. Bayley Blower Co., Milwaukee, Wis. Aeropull-Ventilators. Paul R. Jordan
- & Co., Inc., Indianapolis, Ind. Aerosolve-Filters. Cambridge
- Corp., Syracuse, N. Y.
- Aerovane—Anemometers. Friez Instru-ment Div., Bendix Aviation Corp., Baltimore, Md.
- Aerovane-Grilles, Registers. Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn.
- Aertite—Furnace Cement, Waterproof-ing. Johns-Manville, New York, N. Y. Aerylite-Plastic Panels. Wasco Prod-
- ucts, Inc., Cambridge, Mass. Afco—Blowers, Gas and Oil Burners, Furnaces, Air Conditioning Units. American Furnace Co., St. Louis, Mo.
- Afco Comfortmaker-Air Conditioning Units. American Furnace Co., St. Louis,
- Afco Duo Blo-Furnaces. American Furnace Co., St. Louis, Mo. Afco Master-Gas-Furnaces. American
- Furnace Co., St. Louis, Mo. Afco Oil Master-Furnaces, American Furnace Co., St. Louis, Mo.
- Affco-Fire Dampers, Louvers. American Foundry & Furnace Co., Bloomington,

- Agilene-Pipe and Fittings, Plastic Ducts, Metal Protective Coating, Plastic Tubing. American Agile Corp., Bedford, Ohio.
- Agilide-Plastic Tubing. American Agile Corp., Bedford, O.
- Agitair-Air Diffusers, Filters, Registers and Grilles, Ventilators. Air Devices Inc., New York, N.Y. Airacoustic—Insulation. Johns-Manville,
- New York, N.Y.
- Aircap-Ventilators. Penn Ventilator Co. Inc., Philadelphia, Pa.
- Aircell—Duct Insulation. Nicolet Industries, Inc., Norristown, Pa.
  Airco—Flux, Welding Rod, Torches and Welding Equipment. Air Reduction Sales Co., New York, N.Y.
- Air-Con-Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.
- Aircon-Condensers. McQuay, Inc., Minneapolis, Minn.
- Control-Air Conditioning Units, Coils. Hastings Air Conditioning Co.,
- Inc., Hastings, Nebr.

  Air Controls—Ridge Ventilator. Pl
  steel Products Co., Washington, Pa. Air-Cote-Insulation. Sprayo-Flake Co.,
- Chicago, Ill. Aircoustat—Sound Absorbers. Koppers Co., Inc., Metal Products Div., Balti-more, Md.
- Airditioner-Conditioning -Air Modine Mfg. Co., Racine, Wis.
- Air-Ease—Furnaces. Johnson Furnace
- Co., Cleveland, O.
  Airefiner—Water Conditioners, Cleaning
  Compounds. Oakite Products, Inc., New York, N. Y.
- Aire-Flo-Blower-Filters, Furnaces. Lennox Industries Inc., Marshalltown,
- AIRefrigeration-Condensers, Condensing Units and Air Conditioning Units. The Williamson Co., Cincinnati, O.
- Aire-RAY-ator—Furnaces. Ray Oil Burn-er Co., San Francisco, Calif. Airette—Ventilators and Fans. Penn Ventilator Co. Inc., Philadelphia, Pa. Airex—Evaporative Coolers, Ventilators, Blowers, Fans, Washers. Mountain
- States Equipment Co., Denver, Colo.
  Air Extractor—Duct Dampers. A-J Mfg.
- Co., Kansas City, Mo. Airfeedrill-Pneumatic Drills. Gardner-
- Denver Co., Quincy, Ill. irflo—Duct Accessories. Inland Steel irflo-Duct Accessories. Inland Products Co., Milwaukee, Wis.
- Air-Flo-Louvers and Dampers. Air Conditioning Products Co., Detroit, Mich.
- Airfoil-Fans, Fan Blades, Ventilators. Aerovent Fan Co., Piqua, Ohio.
- Airfoil-Grilles, Louvers, Registers, Dif-fusers. Titus Mfg. Corp., Waterloo, Iowa.
- Air Guide-Duct Vanes. Titus Mfg. Corp., Waterloo, Iowa. Air-In-Roof Ventilators. Octagon Venti-
- lator Co., Chicago, Ill.

Airistocrat-Fan Blades. Torrington Mfg. Co., Torrington, Conn.
Airjector—Ventilators. Swartwout

Fabricators, Inc., Kokomo, and. Air-Jet—Prefabricated Chimney, General Rendericksburg, Va. Products Co., Fredericksburg, Va. Air-Lift—Blowers and Fans. Mauer En-

gineering, Evanston, Ill.

Airlift-Ventilators. Swartwout Fabricators, Inc., Kokomo, Ind.

Air-line-Baseboard Diffusers, Del Wellcome Engineering Co., Clarendon Hills,

Airliner-Fan Blades. Russell Coil Co., Santa Fe Springs, Calif.

Airlouver—Louvers. Swartwout Fabricators, Inc., Kokomo, Ind. Airmaster-Dehumidifiers. Walter Haertel Co., Minneapolis, Minn.

Air Master-Air Diffusers and Registers. Austin Engineering & Mfg. Co., Inc., Ysleta, Tex.

Airmat—Throwaway Filters. Airgard Mfg. Co., Chicago, Ill. Air-Mat—Dust Collectors, Filters. Amer-

ican Air Filter Co., Inc., Louisville,

Air-Mat Arrester-Dust Collectors. American Air Filter Co., Inc., Louisville, Ky.

Air Mate—Diffusers, Registers and Grilles. Dry Mfg. Co., Winters, Tex. Air-Max—Dampers, Diffusers and Fans. Gallaher Co., Omaha, Nebr.

Air Meter-Anemometers. Hastings-Raydist, Inc., Hampton, Va. Airmover—Ventilators. Swartout Fabricators, Inc., Kokomo, Ind.

AirMpeler—Blowers and Blower

AirMpeler—Blowers and Blower Wheels, Roof Ventilators. Ammerman Co., Inc., Stillwater, Minn.
Airo-Flex—Directional Flow Registers.
Auer Register Co., Cleveland, Ohio.
Airoflo—Power Roof Exhauster. Arden Airoflo Engineering, Inc., El Monte, Calif.

Air O Fresh-Air Sterilizers. Products, Inc., Minneapolis, Minn.

Air-O-Matic—Air Conditioning Units.

Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp., Columbus, O.

Airotor-Blower . Wheels. Torrington Mfg. Co., Torrington, Conn.
Air-Out—Ventilator. Accurate

Metal & Mfg. Works, Chicago, Ill. Air-Out Ventilators—Vent Caps. Accurate Sheet Metal & Mfg. Works, Chi-

cago, Ill.

Airphlo—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.

Air Power—Ventilators. Martin Fan &

Blower Co., Chicago, Ill.
ir Prover—Controls. A-P Controls
Div., Controls Co. of America, Milwaukee, Wis.

Airpure—Submicron Particulate Filters. Flanders Filters, Inc., Riverhead, L.I.,

Air-Rad-Air Conditioning Units. Penn Boiler Div. Pebbco Industries Inc., Lancaster, Pa.

Airsan—Wire Cloth Filters. Air Filter Corp., Milwaukee, Wis. Air Seal—Air Filters. Master Products

Co., Chicago, Ill. Air-Seel-Oil Burners. Caloroil Burner Corp., Hartford, Conn.

Air Set—Combustion Chambers. Harvey, Inc., Sid, Valley Stream, N. Y.

Airstat—Controls. Minneapolis-Honey-well Regulator Co., Minneapolis, Minn. Air-Tite-Adhesive Tape for Ducts. Elgen Mfg. Corp., Long Island City, N. Y.

Air-Trim-Baseboard Diffusers. Vulcan Radiator Co., Hartford, Conn.

Airtrol-Furnaces. Holly-General Co., Pasadena, Calif.

Air Tumbler-Dust Collectors. Suppression & Engineering Co., Lake Orion, Mich. Airturn-Vanes. Barber-Colman

Rockford, Ill. Air-Vane-Registers. Rock Island Reg-

ister Co., Rock Island, Ill.

Air-Vent—Roofing Felt. Ruberoid Co.,
New York, N.Y.

Air Wall—Furnaces, Registers. General Electric Co., Air Conditioning Dept.,

Tyler, Tex.
Air-X-Hauster—Chimney Caps. Ventilators. G. C. Breidert Co., San Fernando, Calif.

Air-X-It-Ventilators. Octagon Ventilator Co., Chicago, Ill.

tor Co., Chicago, Ill.

AirXpeler—Chimney Caps and Tops,
Exhausters, Fans, Blowers and Ventilators, Draft Boosters, Blower and
Fan Housings, Blower Wheels. Ammerman Co., Inc., Stillwater, Minn.

Aktiv—Cleaning Compound. Turco Products, Inc., Los Angeles, Calif. Alclad-Sheets. Aluminum Company of

America, Pittsburgh, Pa. Alco-Ventilators. A. H. Lumm Co., Toledo, Ohio

Alcoa—Aluminum Products. Aluminum Co. of America, Pittsburgh, Pa. Alcuplate-Metal Sheets. Metals & Con-

trols, Div. of Texas Instruments Inc., Attleboro, Mass.

Alfol-Asbestos—Duct Insulation. Reflectal Corp., Subsidiary Borg-Warner Corp., Chicago, Ill.

Aliron-Metal Sheets. Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass.

Allegheny Metal-Stainless. Allegheny Ludlum Steel Corp., Pittsburgh, Pa. Allen-Fans, Park Heating Specialties, Minneapolis, Minn.

Allen-Flux-Soldering Flux. L. B. Al-

len Co., Inc., Chicago, Ill.
Allite—Plastic Panels. Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

All-Saw-Electric Saws. Wen Products Inc., Chicago, Ill.
All-Tite—Vane Rails for Ducts. Elgen

Mfg. Corp., Long Island City, N.Y.
All Weather—Air Conditioning Units.
General Electric Co., Major Appliance
Div., Room Air Conditioner Dept., Louisville, Ky.

Alma—Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Brush Co., Worcester,

Almar—Hand Slitting Machines, Power Flanging Machines. Ward Machinery

Co., Chicago, Ill.

Alnifer—Metal Sheets. Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass.

Alnor-Thermometers. Illinois Laboratories, Inc., Chicago, Ill.

Alodine-Aluminum surface treatment. American Chemical Paint Co., Ambler,

Alpine-Evaporative Coolers. International Metal Products Co., Phoenix,

Alsiplate-Metal Sheets. Metals & Controls, Div. of Texas Instruments Inc., Attleboro, Mass.

Alumar-Welding Rod. Arcos Corp., Philadelphia, Pa.

Alumaroll-Metal Awnings. Awning & Mfg. Co., Cleveland, Ohio. Alumattic-Louvers and Shutters. Phil Rich Fan Mfg. Co., Houston, Tex.

Alumaweld-Flux and Solder. Johnson Mfg. Co., Inc., Mount Vernon, Iowa. Alumbrite—Paint. Thompson & Co., Oak-

mont, Pa.
Alumend—Welding Rod. Arcos Corp.,

Alumend—Welding Rod. Arcos Corp., Philadelphia, Pa., Alumi-Flux—Soldering Flux. L. B. Al-len Co., Inc., Chicago, Ill. Alumilux—Water Heaters. Clayton & Lambert Mfg. Co., Louisville, Ky. Alumin-nu—Metal Cleaner. NuSteel Co., Chicago, Ill.

Chicago, Ill. Aluminum-Champ-Roof Flashings. Ludlow Papers, Inc., Needham Heights,

Aluminweld—Welding Rod. Electric Co., Cleveland, Ohio. Lincoln Alumiprep-Metal Cleaners, Neilson

Chemical Co., Detroit, Mich.
Alumi-Soder—Aluminum Solder. L. B. Alumi-Souer—Aluminum Solder, L. B. Allen Co., Inc., Chicago, Ill., A-LUM-O-Aire—Filters. Carey Electronic Engineering Co., Metal Wool Div., Springfield, Ohio.

Alumseal-Prefabricated Flashings. Was-

co Flashing Co., Cambridge, Mass. Amazon—Water Heaters. Mustee Heater Co., Cleveland, Ohio. Amballoy-Stainless Steel Plates. A. M.

Byers Co., Pittsburgh, Pa.
Amco-Cabinets. Atlas Mfg. Co., St. Paul, Minn. Amco-Solder and Flux. American Sol-

der & Flux Co., Philadelphia, Pa. Amcoil—Air Conditioners. American Coils, Inc., Newark, N. J. Amer-Clone—Dust Collectors. American Air Filter Co., Inc., Louisville, Ky. Amer-glas—Air Filters. American Air

Filter Co., Inc., Louisville, Ky. Amer-glas—Throwaway Filters.

American—Furnaces. Ryniker Steel Products Co., Billings, Mont.

American—Humidity and Temperature

Recorders, Thermometers. Manning, Maxwell and Moore, Inc., Stratford, Conn.

American—Water Heaters. Hotstream Heater Co., Cleveland, Ohio. American HV—Filters. American Air

Filter Co., Inc., Louisville, Ky. American—Furnaces. Livingston, Inc., Marshall, Mich. American Beauty—Soldering Iron. American Electrical Heater Co., Detroit,

Amerivent—Pipe and Fittings. American Metal Products Co., Inc., Los An-

geles, Calif. Amerjet-Blow Pipe Collectors. American Air Filter Co., Inc., Louisville,

Aminco-Hygrometers, Relays, Thermo-stats. American Instruments Co., Silver Spring, Md.

Ampcoflex—Non-Metallic Duct, Plastic Sheets. Atlas Mineral Products Co., Pa. Mertztown,

Mertztown, Pa.
Amweld—Grilles. American Welding &
Mfg. Co., Building Products Div.,
Warren, O.
Anaconda—Copper and Brass Products,
Aluminum Tubing, Capillary tubing,
Refrigerant Charging Hose and Fittings. American Brass Co., Waterbury,
Copp. Conn.

nchor—Hangers. Royal-Apex Mfg. Corp., Brooklyn, N. Y. Anchor-Hangers. Anchor-Conversion Burners, Stratton &

Terstegge Co., Louisville, Ky. AnchorAire—Furnaces. Anchor Stratton & Terstegge Co., Inc., New

Albany, Ind. Anchorfast-Nails. Independent Nail & Packing Co., Bridgewater, Mass.

Anchorite-Nails. Dickson Weatherproof Nail Co., Evanston, Ill.

Andrite—Refrigerant Dehydrators. Ansul Chemical Co., Refrigeration Div., Marinette, Wis.

Anemotherm-Air Velocity Meters. Anemostat Corp. of America, New York,

Angle-Chek-Inspection Tool for Sheet Metal Workers. Sheridan-Gray, Inc., Palos Verdes Estates, Calif.

Apexo-Roof Flashing. Simplex Mfg. Co., Fond du Lac, Wis.

Aprilaire—Humidifiers. Research Products Corp., Madison, Wis.

Apthorp—Oil Burner Nozzles. Boston Machine Works Co., Lynn, Mass.

Aquabar-Roof Cement. Continental Products Co., Euclid, Ohio. Aqua-Clear-Rust Preventive. Sudbury

Laboratory, Sudbury, Mass.

AquaCooler—Cooling Towers. The Marley Co., Kansas City, Mo.

Aquadam—Roof Cement, Waterproofing. Blue Ridge Talc Co., Inc., Henry, Va. Aquadam-Roofing Felt. Johns-Manville, New York, N. Y.

Aqualene-Water Conditioner. Lester Laboratories, Inc., Atlanta, Ga.

Aquamagic—Evaporative Furnace Hu-midifiers. Viking Air Products Div., National-U.S. Radiator Corp., Cleveland, O.

Aqua Proof—Waterproofing, Roofing Paint. Metropolitan Refining Co., Inc., Long Island City, N. Y.

Aqua-Saver—Cooling Towers. Peerless Products Div., United Cooling Towers, Inc., North Little Rock, Ark.

Aqua-Scale—Automatic Humidifier, J. P. Glasby Míg. Co., Bloomfield, N. J. Aquasorb—Rust Preventive Chemicals. Turco Products, Inc., Los Angeles,

Aquasteel-Water Heaters. Hotstream Heater Co., Cleveland, O.

Aquatherm-Water Heater Controls. Modern Controls Corp., Centerline,

Mich.

Aquatone—Water Conditioning Compounds. Ampion Corp., Long Island City, N. Y.

Aquatower—Cooling Towers. The Marley Co., Kansas City, Mo.

Aquatower Heaters. S. T. Johnson Co. Oakland Calif

Aqulux—Water Heaters. S. T. Johnson
Co., Oakland, Calif.
Arc-Eng—Air Conditioning Registers.
Register & Grille Mfg. Co., Inc.,
Brooklyn, N. Y.
Arcoglas—Water Heaters. American Radiator & Standard Sanitary Corp.,
Plumbing and Heating Div., New
York, N.Y.
Arcogic—Flux, Arcog. Corp., Philadel.

Arcosite-Flux. Arcos Corp., Philadel-

phia, Pa.
Arcosteel-Water Heaters. American Radiator & Standard Sanitary Corp., Plumbing and Heating Div., New York, N.Y. Arctic Circle—Evaporative Coolers. In-

ternational Metal Products Company, Phoenix, Ariz.

Ardox-Nails. Jones & Laughlin Steel Corp., Pittsburgh, Pa.

Arex-Austor-Ventilators. Arex Co., Chicago, Ill.

Arid-Air-Dehumidifiers. Tamms Industries Co., Chicago, Ill. Arin-Dampers. Arex Co., Chicago, Ill.

Arin Accelerator-Louvers and Shutters. Arex Co., Chicago, Ill.

Arin Stationary-Louvers and Shutters. Arex Co., Chicago, III. Aristocrat-Nylon Diffusers, Grilles and

Registers. Airguide Plastics Corp., Miami, Fla.

Arkla Servel—Air Conditioning Unit.
Arkla Air Conditioning Corp., Little

Armaflex-Insulation. Armstrong Cork Co., Lancaster, Pa. Armorize—Paint. Carter Paint Co., Inc.,

Liberty, Ind. Armorweave-Metal Sheets. United States Gypsum Co., Chicago, Ill.

Armstrong—Compressors. Gene chinery Co., Spokane, Wash.

Arrow—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.
Arrowtrol—Registers. Register & Grille Mfg Co., Inc., Brooklyn, N. Y.

ASARCO-Sheets and Roofing. American Smelting and Refining Co., Federated Metals Div., New York, N. Y.
Asbestile—Roof Cement, Flashings.
Johns-Manville, New York, N.Y.
Asbestite—Paint. Coopers Creek Chemi-

cal Corp., West Conshohocken, Pa. Asbestocel-Furnace Insulation. Johns-

Manville, New York, N.Y.
Asbestolux—Asbestos Duct Insulation.
North American Asbestos Corp., Chicago, III.

Asco-Relays, Switches, Valves, matic Switch Co., Florham Park, N. J. Asco-Gutter Fittings and Accessories, Roof Flashings. Atchison Specialty

Mfg. Co., Atchison, Kans. Ashcraft-Pressure Gages. Manning, Maxwell & Moore, Inc., Stratford, Conn.

Ash Pit-Gas Burner. Handley-Brown Co., Jackson, Mich.

Aspir-Jet-Water Spray Nozzles. Ther-mal Agency, Houston, Tex. At-A-Glance-Oil Tank Gauge, Krueger

Sentry Gauge Co., Green Bay, Wis.

Atcotran—Controls. Automatic Timing

& Controls, Inc., King of Prussia, Pa. Atcotrol—Controls. Automatic Timing & Controls, Inc., King of Prussia, Pa. Atlas-Blowers, Direct Fired Heaters, Furnaces and Air Conditioning Units. Tuck-Aire Furnace Co., San Francisco, Calif

Atlas-Diffusers, Grilles, Registers. J. B. Smith Co., Philadelphia, Pa. Atomick-Nozzles, Humidifiers. Maid-

Atomick—Nozzies, rumidiners. Maid-O'-Mist, Inc., Chicago, Ill.

Atomist—Humidifiers. American Foun-dry & Furnace Co., Bloomington, Ill.

Attic-Air—Fans. Acme Engineering & Mig. Corp., Muskogee, Okla.

Atti-C-Ooler—Fans. Damp-Vent Co.,

Bettendorf, Ia. Attifan-Fans. Kool Air Engineering Co., San Bernardino, Calif.

Auditec-Refrigerant Leak John Ould (USA) Ltd., Mt. Vernon, N. Y. Auto-Humidifier Valves, Maid- O'-Mist,

Inc., Chicago, Ill.

Auto-Balance-Damper Systems for Furnace Plenums. Rheem Mfg. Co., Chicago, Ill.

Auto-Frye-Furnaces. Lennox Industries, Inc., Marshalltown, Ia.

Auto-Klean-Fuel Oil Filters. Cuno En-gineering Corp., Meriden, Conn. Automatic Housekeeper-Electronic Air Cleaners. Trion, Inc., McKees Rocks, Pa.

Automaze-Air Filters. Air-Maze Corp., Cleveland, O.

Autostart-Buffers. U. 3. Electrical Motors, Inc., Los Angeles, Calif. Westinghouse Axiflo-Fans. Electric Corp., Sturtevant Div., Boston, Mass.

Axivane-Blowers and Fans. Joy Mfg. Co., Pittsburgh, Pa.

B-60-Controls. General Controls Co., Glendale, Calif.

BAC—Air Conditioning Unit. Brunner Div. of Dunham-Bush Inc., Utica, N. Y. B.A.C.—Condensers, Cooling Towers.

Baltimore Aircoil Co., Baltimore, Md.
BB—Blast Gates, Roof Clips, Damper
Clips and Tips, Conductor Fittings and Accessories, Snow Guarde. Brothers Co., Philadelphia, Pa. Shutters, Blower Accessories, Snow Guards. Berger

&B-Louvers & Shutters, Blower Wheels. Bishop & Babcock Mfg. Co., B&B-Louvers Cleveland, Ohio.

B-H Soundliner-Duct Insulation. Bald-

win-Ehret-Hill, Inc., Trenton, N. J.

BNCO—Cabinets and Casings. Biersach
& Neidermeyer Co., Milwaukee, Wis.

BN Multi-stage—Oil Burners, Oil Furnaces. Benner-Nawman, Inc., Oakland, Calif.

BTU-Furnace Cement. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio. B & W—Combustion Chambers, Refractories. Babcock & Wilcox Co., New York, N. Y.

BX-Oil Burners. Aldrich Co., Wyoming, Ill.

Backstop—Eave Edge Flashing. Squires Construction Co., Cleveland, O. Badger-Time Switches. Reliance Automatic Lighting Co., Racine, Wis.

matic Lighting Co., Racine, Wis.
Baffle Mix—Refractories. Walsh Refractories Corp., St. Louis, Mo.
Bakelite—Plastics, Powders and Resins.
Union Carbide Plastics Co., Div. of
Union Carbide Corp., New York, N.

Ball Flame-Oil Burners. Kresno-Stamm Mfg. Co., Palisades Park, N. J. Ball-O-Matic-Duct Dampers and Regu-

lators, Damper Hardware.

Mfg. Corp., Long Island City, N. Balsam-Wool—Flexible Insulation. Wood Conversion Co., St. Paul, Minn. Bankheat—Oil Burners. S. T. Johnson

Co., Oakland, Calif. Banox-Winter Protective Compounds for Pumps, Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pittsburgh,

Bantam—Electric Drills, Motors. Small Motors, Inc., Chicago, Ill. Bantam Bully—Air Hammer. Superior Pneumatic & Mfg., Inc., Cleveland, Ohio. Bar-Ox-Rust Inhibitor. Truscon Lab-

oratories, Detroit, Mich. Barrett Specification-Roofing Felt. Bar-

rett Div., Allied Chemical & Dye Corp., New York, N. Y. Bar Rust-Metal Protecting Paints. Midland Paint & Varnish Co., Cleveland,

Basa-Mallets. Greene, Tweed & Co.,

North Wales, Pa. Basmor-Incinerators and Water Heat-ers. Bastian-Morley Co., Inc., LaPorte,

Beckett Commodore—Oil Burners, R. W. Beckett Corp., Elyria, Ohio.

Beco-Controls. Better Engineered Controls, Los Angeles, Calif.

Bel-Aire-Ventilating Hoods for Kitch-Emerson-Pryne Co., Pomona, ens. Calif.

Bell-Ex-Roof Ventilators. New York Blower Co., Chicago, Ill. Belmont Top-Vent Caps. William Wal-

lace Co., Metalbestos Div., Belmont, Calif.

Beloit-Sheet Metal Machines, Punches. Hendley & Whittemore Co., Beloit,

Bemis-Furnace Brushes. Worcester Brush & Scraper Co., Worcester, Mass. Bendall-Shape Forming Machine. Engel Sheet Metal Equipment, Inc., St. Louis, Benda-Vane—Registers, Rock Island Register Co., Rock Island, III. Benefire—Metal Fireplaces. Bennett-Ire-land, Inc., Norwich, N. Y.

land, Inc., Norwich, N. Y. Beneform—Draft Dampers for Fireplaces. Bennett-Ireland, Inc., Norwich,

Berger-Gutter Accessories, Metal Lockers, Rooftrim. Republic Steel Corp., Cleveland, O.

Berloy-Building Products. Berger Mfg. Co., Div. Republic Steel Corp., Canton,

Ohio.

Bernz—Torches. American Products
Corp., Chicago, Ill.

Best-Yet—Gutter Hangers. Accurate
Sheet Metal & Mfg. Works, Chicago, Bethcon-Galvanized Sheets. Bethlehem

Steel Co., Bethlehem, Pa. Bethlehem Steel

Beth-Cu-Loy-Sheets. Co., Bethlehem, Pa. Better-Bilt-Furnaces. Barnes Heating &

Ventilating Co., Long Beach, Calif.
Bett-Marr—Sheet Metal Cutting Band
Saw. Lockformer Co., Chicago, Ill.

Bifurcator-Blowers. DeBothezat Fans Div. American Machine and Metals,

Inc., East Moline, Ill.

Big Bully—Air Hammers. Superior
Pneumatic & Mfg., Inc., Cleveland, Ohio.

Bildrite—Sheathing. Insulite Div. Min-nesota & Ontario Paper Co., Minneapolis, Minn.

Billy Penn—Chimney Caps, Gutter and Accessories, Metal Duct, Roof Flashings, Ridge Roll, Mouldings and Trim, urnace Pipe and Fittings, Ventilators. Penn Supply & Metal Corp., Philadelphia, Pa.

Bitumastic-Paint. Koppers Co., Inc., Pittsburgh, Pa.

Bituseal-Paint. Cheesman-Elliot Co., Inc., Brooklyn, N. Y.

Black Arrow-Fans, Spray Guns. Black Mfg. Co., Baltimore, Md.

Black Asphalt-Roofing Paint. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio.

Black Diamond-Built-up Roofing. Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

Black Flash—Roof Cement. J. C. Whit-lam Mfg. Co., Wadsworth, O. Black Lap—Roof Cement. Philip Carey

Mfg. Co., Lockland, Cincinnati, Ohio. Blakite—Insulating Cement. Johns-Man-ville, New York, N. Y.

Blakote-Roofing Paint. Arco Co., Cleveland, O.

Blazecrete-Refractories. Johns-Manville, New York, N. Y.

Blend Air-Diffusers, Ducts and Duct Fittings, Small Pipe Heating Systems, Unitary Air Conditioners. Coleman Co., Inc., Wichita, Kans.

Blizzard-Air Conditioning Units. Palmer Mfg. Corp., Phoenix, Ariz. Blo-Aire—Blower-Filter Units. Furnace Co., Peoria, Ill. Meyer

Blo-Fan-Fans. Emerson-Pryne Co., Pomona, Calif.

Blowette-Blower-Filter Units. Lan Blower Co., Dayton, Ohio.

Blu-Cold—Compressors. Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa. Blue Bird—Shears. Bergman Tool Mfg. Co., Inc., Buffalo, N. Y.

Bluebonnet-Air Conditioning Units. Forston Co., Houston, Tex.

Blue Flame—Rotary Oil Burners. Calor-oil Burner Corp., Hartford, Conn. Blue-Point-Drills. Snap-on Tools Corp., Kenosha, Wis. Blue Ribbon-Furnaces. Thatcher Furnace Co., Garwood, N. J.

Blue Ring-Conversion Gas Burners. Niagara Motors Corp., Dunkirk, N. Y. Blue Streak-Refrigerant Dehydrators.

Wabash Corp., Chicago, Ill. Blu-Flame—Gas Unit Heaters. Vacuum Gas Burner Co., Olean, N. Y. Blu-Flex—Hack Saw Blades. Millers Falls Co., Greenfield, Mass.

Blu-Mol-Hack Saw Blades, Millers Falls Co., Greenfield, Mass.

Bobby-Float Valves for Humidifiers. Robert Mfg. Co., Los Angeles, Calif. Bob-Cat-Hand and Power Hoists. Ohio

Hoist Mfg. Co., Inc., Lisbon, O. Boltaron—Plastic Sheets. General Tire and Rubber Co., Bolta Products Div., Lawrence, Mass.

Bon-Air-Furnace Humidifiers. Arklon Mfg. Co., Cleveland, O.

Bondmaster-Adhesives. Rubber and Asbestos Corp., Bloomfield, N.J. Bondwich-Metal Sheets. Metals & Con-

trols, Div. of Texas Instruments Inc., Attleboro, Mass. Boston Breese-Oil Burners. Boston Ma-

chine Works Co., Lynn, Mass. Boston Chrome Steel-Baffles. Boston Machine Works Co., Lynn, Mass.

Boyer—Power Hammers, Rivet Guns. Chicago Pneumatic Tool Co., New York, N. Y.

Bradford-Water Heaters. Pennsylvania Range Boiler Co., Philadelphia, Pa.

Brassweld-Steel Brazing Flux. Sight Feed Generator Co., West Alexandria,

Brazaloy-Aluminum, cast iron, copper, magnesium and silver soldering flux. All-State Welding Alloys Co., Inc., White Plains, N. Y.

Brazo-Bronze Soldering Flux. Linde Co., Div. Union Carbide Corp., New York, N. Y.

Breez-Air-Fans. Buffalo Forge Co., Buffalo, N. Y.

reeze—Air Filters, Barnebey-C Co., Pur Air Div., Columbus, O. Barnebey-Cheney Breeze-Air Breezebuilder-Fans. Bar-Brook Mfg.

Co., Inc., Shreveport, La. Breeze Conditioning-Ventilators. Amer-

ican Coolair Corp., Jacksonville, Fla.
Breezemaster—Fans. Acme Engineering & Mfg. Corp., Muskogee, Okla.

Breezo-Kitchen Exhaust Fans, Buf-falo Forge Co., Buffalo, N. Y. Brentwood-Water Heaters, National Appliances, Inc., New Kensington, Pa. Bren-Weld-Arc Welders. Brennen, Bucci & Weber, Inc., New York, N. Y.

Bressler-Draft Damper Motors. Kol-Master Corp., Oregon, Ill. Brilliant-Paint. Calbar Paint & Var-

nish Co., Philadelphia, Pa. Brilliant Fire-Furnaces. Ohio Foundry & Mfg. Co., Steubenville, Ohio.

Briquette-Water Conditioners. can Sand-Banum Co., Inc., Merrick,

Brite-Kote-Metal Protective Coating. Klem Chemicals, Inc., Dearborn, Chemicals, Inc.,

Bronco-Solder. Metals & Controls, Div. of Texas Instruments Inc., Attleboro,

Bronzoil-Bearings. Dodge Mfg. Corp., Mishawaka, Ind.

Bronzweld—Cast Iron Brazing Flux. Sight Feed Generator Co., West Alexandria, Ohio.

Brown Electronik-Humidity and Temperature Recorders, Minneapolis-Hon-eywell Regulator Co., Minneapolis. Brownskin-Vaporseal-Vapor Barriers. Ludlow Papers, Inc., Needham Heights, Mass.

Heights, Mass.
Brule—Incinerators. Goder Incinerator
Corp., Blue Island, Ill.
BuiltInThinline—Air Conditioning
Units. General Electric Co., Major Appliance Div., Room Air Conditioner
Dept., Louisville, Ky.,
Bulldog—Snips and Shears. Wiss &
Sons Co., Newark, N. J.
Bundyweld—Tubing. Bundy Tubing Co.,
Detroit. Mich.

Detroit, Mich. Burdco-Propeller Fan Blades. Russell Coil Co., Santa Fe Springs, Calif. Burdett—Gas Burners. Illinois Iron & Bolt Co., Carpentersville, Ill.

Bolt Co., Carpentersville, Ill.
Burflex—Propeller Fan Blades. Russell
Coil Co., Santa Fe Springs, Calif.
Burnall—Incinerators. General Engineering Co., Bay City, Mich.
But-N-Hold—Sheet Metal Working Machine. Bar-Brook Mfg. Co., Inc.,
Shreeport La. Shreveport, La.

Buzzer—Gas Soldering Furnaces, Soldering Torches. Charles A. Hones, Inc., Baldwin, N. Y.

Byloy-Plates. A. M. Byers Co., Pittsburgh, Pa.

C-10-High Temperature Paint. Laclede-Christy Clay Products Co., St. Louis,

Mo.
CDC—Bearings and Pulleys. Chicago
Die Casting Mfg. Co., Chicago. Ill.
C-em—Water Heaters. Bastian-Morley
Co., Inc., La Porte, Ind.

CJB-Bearings. Ahlberg Bearing Co., Chicago, Ill. C&L-Soldering Furnaces and Torches

Clayton & Lambert Mfg. Co., Louiswille, Ky.
M Puller—Cranes. Chisholm-Moore

CM Puller—Cranes. Chisholm-Moore
Hoist Div., Columbus McKinnon
Chain Corp., Tonawanda, N.Y.

CP—Electric Tools, Hoists. Chicago
Pneumatic Tool Co., New York, N. Y.

C/R—Metal Working Mallets. Chicago
Rawhide Mfg. Co., Chicago, Ill.

CSCO—Paint. Chemical Solvent Co., Birmingham, Ala.

Cable King—Hoist. Yale & Towne Mfg.
Co., Philadelphia, Pa.
Caintape—Adhesive Tape for Sealing

Duct Joints. Cain Mfg. Inc., Birming-

Calcoda-Waterproofing. Calbar Paint & Varnish Co., Philadelphia, Pa. Caldwell—Pneumatic Hammers. Burgess

Thomas Co., Bloomfield, N. J. California—Water Heaters. W. B. Bastian Mfg. Co., Los Angeles, Calif. Calka-Matic—Caulking Guns. Vital Products Mfg. Co., Cleveland, O.

Calva-flux--Flux. London Chemical Co., Melrose Park, Ill. Campbell-Stokers. Illinois Iron & Bolt

Co., Carpentersville, Ill. Campcolite-Plastic Panels and Sheets.

Campco Div., Chicago Molded Products Corp., Chicago, Ill.

Canopy Top-Truck Bodies, McCabe Power Auto Body Co., St. Louis, Mo. Cant-Clog-Spray Nozzles. Carrier Corp., Syracuse, N. Y.

Capilator-Capillary Tubing for Re-frigerants. Wolverine Tube Co., Div. of Calumet & Hecla, Inc., Allen Park, Mich.

-Air Conditioning Units, Wash-Capillary. ers, Filters. Air & Refrigeration Corp., New York, N. Y.

Capital-Furnaces. Farris Furnace Co., Springfield, Ill.

Capitolaire-Furnaces and Air Conditioning Units. National-U.S. Radiator Corp., Johnstown, Pa.

Capri—Air Conditioning Units. Frigid, Inc., Brooklyn, N.Y. Captain—Gas Water Heaters. Holly-

Captain—Gas Water Heaters. Holly-General Co., Pasadena, Calif. Cara-Flux No. 400—Flux solution. Carajon Chemical Co., Inc., Fremont, Mich. Carbolite—Soot Guns and Soot Remover. Ampion Corp., Long Island City, N. Y.

Carbonaire-Oil Burners. Breeze Corps.,

Inc., Newark, N. J. Carburetor-Stoker—Industrial

Woolley Eng. Co., Detroit, Mich.
Carex-CP5—Roof Cement, Philip Carey
Mfg. Co., Lockland, Cincinnati, Ohio.
Careyclad—Metal Protecting Paint, Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio.

Stokers.

Careymastic-Waterproofing. Philip Carey Mfg. Co., Lockland, Cincinnati, O. Carilloy—Plate. United States Steel Corp., Pittsburgh, Pa.

Carrier Corp., Carrene—Refrigerants. Syracuse, N. Y.

Cascade-Water Heaters, Cleveland Heater Co., Cleveland, O.
Castalu—Blower Wheels. R & R Metal
Products, Inc., Chicago, Ill.

Castomatic-Solder, American Smelting and Refining Co., Federated Metals Div., New York N. Y. Cast-Refract—Baffles. Quigley Co., Inc.,

New York, N. Y. Catch-All-Refrigerant Dehydrators.

Sporlan Valve Co., St. Louis, Mo. Cathedral—Metal Sheets. United States Gypsum Co., Chicago, Ill.

Catomic-Combustion Heads. Quiet Automatic Burner Corp., Newark, N.J. Caulk-N-Seal--Caulking Compound. Blue Ridge Talc Co., Inc., Henry, Va.

Caulk-O-Seal—Caulking and Glazing Compounds. Calbar Paint & Varnish

Co., Philadelphia, Pa.
Cauxeal—Compounds. X-Pando Corp.,
Long Island City, N. Y.

Ce-Co—Caulking Compounds & Paints. Cheesman-Elliot Co., Inc., Brooklyn, N.Y.

Cecotite—Roofing Paint. Cheesman-Elliot Co., Inc., Brooklyn, N. Y. Ceil-N-Ventor—Fans. Universal Blower

Co., Birmingham, Mich.

Cell-Tite—Tubing Insulation. B. F. Goodrich Co., Sponge Products, Shelton, Conn.

Cemco-Controls. Columbus Electric Mfg. Co., Columbus, O.

Cementkote-Paint. Tropical Paint Co., Cleveland, Ohio,

Cemesto—Curtain Wall Panels. Celotex Corp., Chicago, Ill.

Center-Finder-Protractor. I Sales Co., New York, N. Y. Interstate Center-Lock—Blower Wheels. To ton Mfg. Co., Torrington, Conn. Torring-

Cen-Tri-Core-Solder. Alpha Metals, Inc., Jersey City, N. J.

Centrifugal-Roof Ventilators. Burt Mfg.

Co., Akron, Ohio Centripeller—Ventilating Fans. Paul R. Jordan & Co., Inc., Indianapolis Ind. Centri-vent-Ventilators, Midwest Airmoving Corp., Willoughby, O.

Centri-Vent-Ventilating Systems Kitchens and Bathrooms. Lau Blower Co., Dayton, O.

Century—Unitary Air Conditione Palmer Mfg. Corp., Phoenix, Ariz. Conditioners. Century-Water Heaters. Day & Night

Mfg. Co., La Puente, Calif.

Cerafelt—Combustion Chambers, Sid

Harvey, Inc., Valley Stream, N. Y.

Ceramiduct—Non-Metallic Duct. States ville Brick Co., New Straitsville, O. Challenger—Fans. Palmer Engineering Co., Fan Div., Green Bay, Wis. Ceramiduct-Non-Metallic Duct, Straits-

Challenger-Furnaces. Wheeling nace Corp., Martins Ferry, Ohio. Stokers, Kol-Master Corp., Challenger-Oregon, Ill.

Challenger—Furnaces. York Corp., Subsidiary of Borg-Warner Corp., York,

Chamco-Building Insulation. Chamberlin Co. of America, Detroit, Mich. Champion—Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind. Champion—Water Heaters. Crane Co.,

Chicago, Ill. Channellock—Pliers.

Champion DeArment Tool Co., Meadville, Pa.
Charg-A-Can—Refrigerants. American Potash & Chemical Corp., Los Ange-

les. Calif. Chem-O-Glas—Plastic Panels. Chemold Co., Santa Monica, Calif.

Chester-Water Heaters. Ajax Thermostatic Controls Co., Gates Mills, Ohio.

Chicago—Brakes, Presses, Press Brake Dies. Dreis & Krump Mfg. Co., Chicago, III

Chicago-Toggle and Anchor bolts. Chicago Expansion Bolt Co., Chicago, Ill. Chicago-Stokers. Eddy Stoker Corp., Wheeling, Ill.

Chicago—Throatless Shears, W. A. Whitney Mfg. Co., Rockford, Ill. Chief—Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.

Co., Dowagiac, Mich.
Chief—Refractories. A. P. Green Fire
Brick Co., Mexico, Mo.
Chill Air—Evaporative Coolers, Fans,
Recirculating Pumps. National Engineering & Mfg. Co., Sedalia, Mo.
Chimney Sweep—Soot Remover. G. N.
Coughlan Co., West Orange, N. J.

Chinook—Heating Coils. Bayley Blower Co., Milwaukee, Wis.

Chlorothene-Degreasing Dow Chemical Co., Midland, Mich. Chore Boy-Conversion Gas Burner, Incinerator. Standard Fuel Engineering

Co., Detroit, Mich. Boy-Incinerators. Chore Incinerator Products Co., Detroit, Mich.

Chromalox-Heaters, Thermostats, Electric Heating Cable and Electric Heating Panels. Edwin L. Wiegand Co., Pittsburgh, Pa. Chromenar—Welding Rod. Arcos Corp.,

Philadelphia, Pa. Chromend—Welding Rod. Arcos Corp.,

Philadelphia, Pa. Chrome Lock—Gaskets. Products Re-

search Co., Los Angeles, Calif.
Chromtrim—Mouldings and Trim. R. D.
Werner Co., Inc., New York, N.Y.
Chronat—Furnace Repairs. National
Foundry & Furnace Co., Dayton, Ohio.

Chronometer—Gas Pressure Regulating Valves. Defender Instrument and Regulator Co., Boody, Ill.

Chronotherm-Thermostats. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Chrysler-Airtemp—Heating and Cooling
Equipment, Airtemp Div., Chrysler
Corp., Dayton, Ohio.
Cibulas—Puttyless Skylights. General

Sheet Metal Works, Inc., Bridgeport, Conn Ciel-N-Wall-Fans. Fasco Industries,

Inc., Rochester, N. Y. Cinch-Expansion Bolts. National Lead

Co., New York, N. Y. Clamp-Insulation Fastenings. Cuyahoga Products Corp., Subsidiary Republic Industrial Corp., Cleveland, Circuitrol—Panel and Control Boards.
Continental Electric Equipment Co., Cincinnati, Ohio. Clima-Pump—Heat Pump. Peerless Corp.,

Indianapolis, Ind. Cinerator-Incinerators. Harmond Co.,

Cleveland, O. Cinti-Elbows. Cincinnati Elbow Co., Cincinnati, Ohio. Clampmaster—C-clamp. Grand Special-

ties Co., Chicago, Ill. Clason—Snow Guards. M. N. Cartier & Sons Company, Providence, R.I.

Classic-Baseboard Diffusers. Boyd, Inc., North Tonawanda, N. Y.

Classie—Furnaces. Perfection Industries.
Div. of Hupp Corp., Cleveland, O.
Clean-Air Sentry—Gages. York Corp.,
Subsidiary of Borg-Warner Corp., York, Pa.

Clean Right-Soot Remover. General Filters, Inc., Novi, Mich. Clean Right-Soot Remover. Miller Prod-

uct Co., Lansing, Mich. Clearite—Oil Pump Tester. Jay-Zee Mfg.

Co., Chicago Ridge, Ill. Clearstream-Plastic Plastics Co., Columbus, O.

Clear Vent-Furnace Pipe and Fittings. Speedy Mfg. & Sales Co., Amarillo, Tex.

Clearview—Oil Tank Gauge. Bo Machine Works Co., Lynn, Mass.

Clear Vue-Unitary Air Conditioners. Speedy Mfg. & Sales Co., Amarillo,

Cleatbender-Cleat Bending Machine. Engel Sheet Metal Equipment, Inc., St. Louis, Mo. Cleerall-Air Filters. Continental Air

Filters, Inc., Louisville, Ky.

Cleveland—Burners, Furnaces, Incinera-tors. Dornback Furnace & Foundry Co., Eastlake, O.

Clevelander—Water Heaters, Hotstream Heater Co., Cleveland, O.

Click Dial—Controls. Penn Controls, Inc., Goshen, Ind.

Climaster—Furnaces. York Corp., Sub-sidiary of Borg-Warner Corp., York, Pa.

Climate Challenger—Air Conditioning Units. York Corp., Subsidiary of Borg-Warner Corp., York, Pa.

Climate Changer—Furnaces and Air Conditioning Units. Trane Co., La Crosse, Wis.
Climate Master—Furnaces. Hess Co.,

Chicago, Ill.

Climatizer-Humidifiers. Keeney Mfg. Co., Newington, Conn.

Conditioning Climatrol-Air Blower-Filter Units, Furnaces, Conversion Burners, Humidifiers, Dehumidifiers, Incinerators. Mueller Climatrol, Milwaukee, Wis.

Clima-Twin—Air Conditioning Units Peerless Corp., Indianapolis, Ind. and Round Oak Co., Inc., Dowagiac, Mich. Clincher-Gutters and Accessories. Inland Steel Products Co., Milwaukee,

Clipper-Kitchen Exhaust Fans. Trade-Wind Div., Robbins & Myers, Inc., Pico Rivera, Calif.

Wis.

Clipper-Ventilators. Riggin Metal Products, Inc., Kankakee, Ill.

Cliprol—Clip Forming Machine. Harper Metal Products, San Bruno, Calif. Cliptak-Adhesives. Cain Mfg. Inc., Birmingham, Ala.

Clix-on-Takeoffs. Standard Metal Fabricating Co., Omaha, Nebr.

Coal-O-Matic—Stokers. Automatic Solid Fuels Equipment Co., Indianapolis, Ind.

Coats Atmospheric-Atmospheric Cooling Towers. Toungate & Coats, Austin, Tex.

Coats Hideway—Mechanical Draft Cooling Towers. Toungate & Coats, Austin,

Cog-Belt-V Belts. Dayton Industrial Products Co., Melrose Park, Ill.

Coldprest-Housings. Commercial Shearing & Stamping Co., Youngstown, Ohio.

Coldstream-Air Conditioning Baker Refrigeration Corp., South Windham, Me.

Cole-Draft Governor. Cole-Sewell Engineering Co., Minneapolis, Minn. Coleman—Roof Flashings. Flashrite, Inc., Cheyenne, Wyo.

Collopakes-Roofing Paint. Samuel Cabot, Inc., Boston, Mass.
Colmonoy—Welding Rod. Wall Col-

monoy Corp., Detroit, Mich.
Colonial—Blower-Filter, Oil Burners,
Furnaces, Humidifiers, Heaters, Stokers. Green Colonial Furnace Co., Des Moines, Ia.

Colonial—Rain Goods and Fittings. Royal-Apex Mfg. Co., Brooklyn, N.Y

Columbia-Furnaces. Sandberg Mfg. Co., Portland, Ore.

Combi-Matic-Gas-Oil Burner. Power-Flame, Inc., Grandview, Mo.

Combustioneer-Stokers. Automatic Solid Fuels Equipment Co., Indianapolis, Ind. Comet—Gas Water Heaters. Hoyt Heat-

er Co. of No. Calif., Oakland, Calif. Comfort Air-Humidifier Plates. Multi-

ple Ceramics, Buffalo, N. Y.
Comfort-Aire—Furnaces, Electric Duct Heaters. Heat Controller, Inc., Jackson, Mich.

Comfort Center-Furnaces, Air Conditioning Units. York Corp., Subsidiary of Borg-Warner Corp., York, Pa.
Comfort Flo-Furnaces. Montag Inc.,

Portland, Ore.

Comfortmaster-Furnaces. Thatcher Furnace Co., Garwood, N. J. Comfortrol—Furnaces. Waterman-Water-

bury Co., Minneapolis, Minn. Cominco—Insulating Cement. United States Mineral Wool Co., Stanhope,

Command-Aire-Furnaces. Bryant Mfg. Co., Indianapolis, Ind. Command-Aire-Condensers. Air Condi-

tioning Units. Texas Products Mfg. Co., Waco, Tex. Commander-Furnaces. Round Oak Co.,

Inc., of Indiana, Dowagiac, Mich. Commercial-Aire-Direct Fired Oil Heaters. Mammoth Furnace Co., Minne-

apolis, Minn. Compact-Oil Burners. Breeze Corp., Inc., Newark, N.J.

Compact—Furnaces. Day & Night Mfg. Co., La Puente, Calif.

Compact-Aire-Direct Fired Heaters. Mammoth Furnace Co., Minneapolis,

Compacto-Furnaces, Mammoth Furnace Co., Minneapolis, Minn.

Compass V-Steel-V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio. Condens-Aid—Water Conditioners. Schaefer Chemical Products Co., Saginaw. Mich.

Conditionair-Funaces. Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Condor—Belts. I Inc., Passaic, N. J. Raybestos-Manhattan,

Coni-Vane-Ventilators. Allen Cooler & Ventilator Inc., Rochester, Mich.

Connecticut-Hand Brakes. W. Whitney

Stueck, Inc., Old Saybrook, Conn.
Conomanual—Air Filters. Continental
Air Filters, Inc., Louisville, Ky.
Conomatic—Air Filters. Continental Air Filters, Inc., Louisville, Ky.
Conso—Louvers and Shutters.

Roof Ventilators. Consolidated General Products, Inc., Houston, Tex. Consolaire-Air Conditioning Units.

Remington Air Conditioning Remington Corp., Auburn, N.Y. Div., Consolite—Skylights. Consolidated General Products, Inc., Houston, Tex.

Constant Flo—Furnaces. Waltham Oil Burner Co., Inc., East Boston, Mass.

Conterflow-Furnaces. Western Blower

Co., Seattle, Wash.
Contour-Aire—Furnaces and Oil Burners. Rossoe Mfg. Co., Seattle, Wash.
Contractor—Gas Burners. Barber Mfg. Co., Cleveland, O.

Convector—Furnaces. L. J. Mueller Furnace Co., Milwaukee, Wis.
Convector—Humidifiers. Maid-O'-Mist,

Inc., Chicago, Ill. Converto-Ventilators. Ammerman Co., Inc., Stillwater, Minn.

Coolair-Evaporative Cooler Units. Belmetals Mfg. Co., Inc., Belmont, Calif. Coolair—Fans. Fan Blades, Roof Venti-lators. American Coolair Corp., Jacksonville, Fla.

Cooler-Aire—Air Conditioning Unit. Baltimore Porcelain Steel Corp., Baltimore, Md. Coolero-Ventilators.

Coolero—Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N.Y. Coolite—Paint, Fibreboard Paper Products Corp., San Francisco, Calif.

Cool Pad-Evaporative Cooler Mats. Research Products Corp., Madison, Wis. Cooltong-Brazing Torches, Lincoln Electric Co., Cleveland, O.

Cooper-Kote-Sheet Metal Paint, Coopers Creek Chemical Corp., West Conshohocken, Pa.

Copper-Champ-Roof Flashings. Ludlow Papers, Inc., Needham Heights, Mass. Copper-Fabric—Flashing. Wasco Products, Inc., Cambridge, Mass.

Copperseal--Flashing. Wasco Products, Inc., Cambridge, Mass.

Copper Steel-Copper Bearing Sheets. United States Steel Corp., Pittsburgh, CopR-fibre-Insulation. Forty-Eight In-

sulations, Inc., Aurora, Ill. Cop-R-Flash—Flashing. Phoenix Building Products, Inc., Philadelphia, Pa.

Cop-R-Loy—Copper Bearing Steel Sheets.
Wheeling Steel Corp., Wheeling, W.

Cop-R-Tex-Thru-Wall Flashing. Wasco Products, Inc., Cambridge, Mass. Corkboard-Insulation, Armstrong Cork

Co., Lancaster, Pa. Corkboard- Insulation. Mundet Cork

Corp., Brooklyn, N.Y. Cork-Flex-Vibration Isolating Bases and Pads. Vibration Mountings, Inc., Corona, N. Y.

Cork-Rib-Vibration Isolating Pads. Vibration Mountings, Inc., Corona, N. Y. Corktite—Insulation. Meadows, Inc., W.

R., Elgin, Ill. Cornet-Unitary Air Conditioners. Palmer Mfg. Corp., Phoenix, Ariz.

Coronado-Window Air Conditioners. General Appliance Corp., Greenville, Mich.

Corox-Electric Baseboard Heaters. Westinghouse Electric Corp., Pittsburgh, Pa.

Corozone-Ozone Apparatus. Coroaire Heater Corp., Cleveland, Ohio.

Corrodicide-Rust Preventive Chemicals and Water Conditioning Compounds. Metropolitan Refining Co., Inc., Long Island City, N. Y.

Corrodine—Rust Preventive Chemicals and Water Conditioning Compounds Metropolitan Refining Co., Inc., Long Island City, N. Y.

Corrulux-Plastic Panels, Johns-Manville

Fiber Glass Inc., Toledo, O.
Cor Ten—Steel Plates. Tennessee Coal
& Iron Div., U.S. Steel Corp., Fairfield, Ala. Corvel-Metal Protective Coatings. Poly-

mer Corp., Reading, Pa.
Corvette—Water Heaters. Security Mfg.

Co. Kansas City, Mo.
Cottrell Process—Collectors.

Precipitation Corp., Los Angeles, Calif.
Counterflo—Direct Fired Heaters. Dravo
Corp., Pittsburgh, Pa.
Coverange—Ventilating Hoods. Philip
Carey Mfg. Co., Lockland, Cincinnati, O.

Covotop—Roofing Felt. Owens-Corning Fiberglas Corp., Toledo, O. Cozy—Furnaces. Advance Furnace Co.,

Wichita, Kans.
Cradle-Calker—Caulking Guns. Vital
Products Mfg. Co., Cleveland, O.
Crane Basmor—Furnaces. Bastian-Morley Co., Inc., LaPorte, Ind.
Crary's—Cut-Offs. Galvan Mfg. Co.,
New Albany, Ind.
Crest—Water Heaters. Day & Night
Mfg. Co. La Puente Calif. Wichita, Kans.

Crest—Water Heaters. Day & Night
Mfg. Co., La Puente, Calif.
Crestoloy—Tools. Crescent Tool Co.,
Jamestown, N. Y.
Criss Cross—Furnace Brushes. Worcester
Brush & Scraper Co., Div. Mason
Worcester Brush Co., Worcester, Mass.
Cromaloy—Stainless Soldering Flux.
Lind Co. Div. Miss. Cromaloy—Stainless Soldering Flux. Linde Co., Div. Union Carbide Corp., New York, N. Y. Cro-Roto—Embossed Metal Sheets. Cro-

name, Inc., Chicago, Ill.

Cross-Flo-Refrigerant Dehydrators Remco, Inc., Zelienople, Pa. Croweave-Embossed Metal Sheets, Croname, Inc., Chicago, Ill.

Crusader-Gas Water Heaters. R. D. Spickler Co., Inc., Mamaroneck, N. Y.

Curtiss-Furnaces and Air Conditioning Units. Kleer-Kleen Mfg. Co., Hayward, Calif. Cushioned Power-Solenoid Valves.

White-Rodgers Co., St. Louis, Mo.
Customized—Electric Motors. Jack &

Heintz, Inc., Cleveland, O.
Custom Mark II—Furnaces. Iron Fireman Mfg. Co., Cleveland, O.
Cyclo-Core—Rotary Drill Bits. New England Carbide Tool Co., Inc., Medford, Mass.

Cyclo-Twist-Masonry Drill Bits. New England Carbide Tool Co., Inc., Medford, Mass.

Cyclone—Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

Cycoil-Dust Collectors, American Air Filter Co., Inc., Louisville, Ky.

DAP-Caulking Compound. Dicks-Armstrong-Pontius, Inc., Dayton, O.

DFC—Insulating Cement. Denver Fire Clay Co., Denver. Colo. DFN—Fuel Oil Filters, Sight Glass for Refrigerant Lines, Refrigerant Charging Hose, Valves, Driers and Strainers for Refrigeration Systems, Refrigerant Dehydrators. McIntire Co., Living-

ston, N. J. DWW-Gas Water Heaters. D. Whitehead Mfg. Corp., Trenton, N. J. Dacor-Odor Adsorbers, Filters. Barne-bey-Cheney Co., Pur Air Div., Columbus, O.

Daffinaire-Humidifers. HERRmidifier Co., Lancaster, Pa.

Daisy-Rivets. Huck Mfg. Co., Detroit, Damtite-Waterproofing. Speco, Inc.,

Cleveland, O.

Da-Nite Acratherm-Thermostats, Minneapolis-Honeywell Regulator Minneapolis, Minn.

Dasco Targethead-Punches, Tools. Damascus Steel Products Corp., Rockford, III.

Dearborn Aire-Air Conditioning Units. Dearborn Stove Co., Dallas, Tex. Dearsol-Fuel Oil Tank Solvents. Dear-

born Chemical Co., Chicago, Ill. Debanode-Paint. Debevoise Co., Brook-

lyn, N. Y. Debecote-Paint, Debevoise Co., Brook-

lyn, N. Y. Decorator-Wall Furnaces. Heil-Quaker

Corp., Nashville, Tenn. Decoseal-Paints. Debvoise Co., Brook-

lyn, N. Y Defensite Tuf Quik-Paint, Wilbur & Williams Co., Norwood, Mass.

Deflectrol—Duct Turning Vanes. Bar-ber-Colman Co., Rockford, Ill.

Dehydratine—Waterproofing. A. C. Horn Co., Inc., Long Island City, N. Y. Deion—Time Switches. Westinghouse Deion-Time Switches. Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Delco-Heat—Oil Burners and Furnaces. Delco Appliance Div., General Motors Corp., Rochester, N. Y.

Delde-Punch Presses. Doelger & Kirsten, Inc., Milwaukee, Wis.

Deltafilm-Vapor Barriers. The Delta Co., Chicago, Ill.

Deluxe-Furnaces. The Williamson Co., -Cincinnati, O.

Deluxe-Water Heaters, Holly-General Co., Pasadena, Calif.

De-Moist-Dehumidifiers. G. N. Coughlan Co., West Orange, N. J. Denco-Nails, Deniston Co., Chicago,

Deox-Metal Cleaner, Colonial Alloys Co., Philadelphia, Pa.

Deoxidine-Metal Protecting American Chemical Paint Co., Ambler,

Dereka-Paint. Debevoise Co., Brooklyn, N. Y.

Desco-Blower Wheels. Denbo Engineering and Sales Co., Inc., Indianap-

Desert Air-Furnaces. Central Mfg. Co., Inc., Arkansas City, Kans. Desludgit-Fuel Oil Tank Solvent. Chemical Corp., Mt. Stewart-Hall

Vernon, N. Y. De-Sta-Co-Blower Housings, Clamps. Detroit Stamping Co., Detroit,

Detroit Double Retort-Stokers, Detroit

Stoker Co., Monroe, Mich. Detroit LoStoker-Stokers. Detroit Stok-

er Co., Monroe, Mich. Detroit Roto Grate Stoker-Stokers. Detroit Stoker Co., Monroe, Mich.

Detroit Roto Stoker-Overfeed Spreader Stoker. Detroit Stoker Co., Monroe,

Detroit UniStoker-Stokers, Detroit Stoker Co., Monroe, Mich.

Dexter Heat Valve-Ventilators. Swartwout Fabricators, Inc., Kokomo, Ind. Di-Acro—Sheet Metal Working Machines. O'Neil-Irwin Mfg. Co., Lake City, Minn.

Dial-Damper Regulator. Martens & Stormoen Co., West Quincy, Mass. Dialaire-Air Conditioning Units. Dialatemp, Inc., St. Louis, Mo.

Dial-Set-Stokers. Kol-Master Corp., Oregon, Ill.

Diamond-Paint. Thompson & Co., Oakmont, Pa. Diamond-Smoke Pipe Dampers. Adams

Co., Dubuque, Iowa.
Diamond—Spot Welders. General Dynamics Corp., Liquid Carbonic Div., Chicago, III.

Diamond H—Controls, Switches, Hart

Mig. Co., Hartford, Conn. Diffusaire-Air Diffusers. Hart & Cooley

Mfg. Co., Holland, Mich.
Directrol—Duct Turning Vanes. Register & Grille Mfg. Co., Inc., Brooklyn,

Divco-Brushes, ivco—Brushes, Flashing, Caulking Compounds, Flux, Sheets, Solder. Division Lead Co., Summit, Ill. Dixie-Water Heaters. Hotstream Heat-

er Co., Cleveland, Ohio.

Dixie-Aire—Furnaces. Peerless Corp., Indianapolis, Ind., and Round Oak Co., Inc., Dowagiac, Mich.

Dixie Star-Water Heaters. Hotstream Heater Co., Cleveland, Ohio. Do-All—Electric Hammer. Wodack Electric Tool Corp., Chicago, Ill.
Docken—Portable Electric Shears. C. W.

Lind Co., Minneapolis, Minn.

Dome Skylites-Skylights. Vent-O-Lite Co., Chicago, Ill. Domestigas-Gas Conversion

Thermex Engineering Co., Chicago, Ill. Domette-Fans. omette—Pans. Inc., Philadelphia, Pa. Penn Ventilator Domex-Ventilators. Ventilator

Co., Inc., Philadelphia, Pa. Do-Mor-Adj. Keyhole Saw. Pioneer Tool Co., Racine, Wis.

Dorex-Odor Absorbers. Connor Eng. Danbury, Conn. Double Diamond-Psychrometers, Relays, Switches, Thermometers. H-B Instru-

ment Co., Philadelphia, Pa. Double-Duty-Oil Burners. Breeze Corps., Inc., Newark, N. J. Double-Seal-Humidifier Fittings. Hays

Mfg. Co., Erie, Pa.

Doublex—Asbestos Paper. Johns-Manville, New York, N. Y.

DovRloy-Sheets. Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel

Corp., Dover, Ohio.

Dowex-Water Conditioning Compounds. Dow Chemical Co., Midland,

Downflame-Gas-Oil Burners, Floor Furnaces. United Air Heaters, Inc., Seattle, Downflo-Furnaces. United Air Heaters,

Inc., Seattle, Wash. Drafbooster—Mechanical Draft Booster.

Breese Burners, Inc., Sales and Appliance Engineering Div., Milwaukee,

Draft-A-Justor-Barometric Dampers. Preferred Utilities Mfg. Corp., New York, N. Y.

Draftette-Portable Drafting Set. David Miller & Associates, Beverly Hills, Calif

Draft King-Chimney Caps and Tops. Norwood Products Co., Div. A. R. Wood Mfg. Co., Luverne, Minn. Draft KoreKtor—Damper. Cole-Sewell

Engineering Co., Minneapolis, Minn. Draft-O-Stat-Barometric Dampers. Hotstream Heater Co., Cleveland, Ohio. Draftrite-Draft Gages. Bacharach In-

dustrial Instrument Co., Pittsburgh, Pa. Vacuum Cleaners. Dragon-Furnace Chemical Products Co., Newark, N. J.

Dricon-Condensers. Recold Corp., Los Angeles, Calif.

DriCooler-Condensers. The Marley Co., Kansas City, Mo.

Dri-Cor-Refrigerant Dehydrators. Henry Valve Co., Melrose Park, Ill -Evaporative Condensers. cold Corp., Los Angeles, Calif. Drifilter-Filters. American Air Filter

Co., Inc., Louisville, Ky.
Drifilter—Filters. Airgard Mfg. Co., Chicago, Ill. ri-Lap—Sheet Metal Roofing. Newport

Dri-Lap-Steel Corp., Newport, Ky. Drilfast-Expansion Anchors. U.S. Expansion Bolt Co., York, Pa.

Drill Hammer-Hammer Attachment for Drills. Rawlplug Co., Inc., Rochelle, N. Y.

Drilsaw-Attachment for Drill. Williams Tool & Stamping Co., Inc., Kansas City, Mo.

Dri-N-Tite—Roof Cement. A. C. Horn Co., Inc., Long Island City, N. Y. Drive-It—Powder Charged Power Hammers. Omark Industries, Inc., Portland, Oreg.

Drive-Rite-Aluminum Nails. Independent Nail & Packing Co., Bridgewater,

Driwal-Waterproofing. Glidden Co., Cleveland, O. Drum Punkah-Duct Dampers. Thermo-

tank, Inc., Detroit, Mich.

Dry-Eye—Refrigerant Dehydrators. Ansul Chemical Co., Refrigeration Div.,

Drygalv-Cold Galvanizing Compounds. American Solder & Flux Co., Philadelphia, Pa.

Drymaster-Dehumidifiers. Dryomatic Corp., Alexandria, Va.
Dryola—Incinerators. General Engineer-

Dryota—Incinerators, General Engineering Co., Bay City, Mich.

Du-Air—Duct Damper Controls, Morrison Products, Inc., Cleveland, O.

DualAire—Blow Pipe Collectors, West-

ern Precipitation Corp., Los Angeles, Calif.

Dual Arc—Arc Welders. Electric Arc, Inc., Newark, N. J. Dual-Clone—Blow Pipe Collectors. Day Co., Minneapolis, Minn.

Dual-Dial-Tank Gauge. Rochester Mfg. Co., Inc., Rochester, N. Y. Dualock-Furnaces. Mueller Climatrol,

Milwaukee, Wis. Dual-Pneumatic-Water Spray Nozzles.

HERRmidifier Co., Lancaster, Pa.

Dualvector—Air Conditioning Units.

Kritzer Radiant Coils, Inc., Batavia,

Dualvent—Roof Ventilators. Octagon Ventilator Co., Chicago, Ill. Dubblseal—Sheeting. Masonite Corp., Chicago, Ill.

Dubl-Dome-Skylights. The PAM Co., Portland, Ore.

DuBoth-Rust Preventive Chemicals and Water Conditioning Compounds. Met-ropolitan Refining Co., Inc., Long

Island City, N. Y.

Duclean—Metal Cleaner. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Duco-Paint. E. I. du Pont de Nemours & Co., Wilmington, Del.

Ductak—Insulation Adhesive. Cain Mfg.

Inc., Birmingham, Ala.

Ductboard-Prefabricated Ducts. Nicolet Industries, Inc., Florham Park, N. J. Duct-Fabric-Flexible Duct Connections. Duro-Dyne Corp., Farmingdale, N. Y.

Ductape—Sheet Metal Fastenings. Western Wire Products Co., St. Louis, Mo. Ducturns—Vanes. Tuttle & Bailey Div. of Allied Thermal Corp., New Britain,

Ductype-Fans. South Bend Air Products, Inc., South Bend, Ind.

Dulux-Enamels, Lacquers and Paints. E. I. du Pont de Nemours & Co., Wilmington, Del.

Dum Dum—Metal Protective Coatings, Caulking Compounds, Waterproofing. Arco Co., Cleveland, O.

Duolock-Bonding Adhesives. Goodrich Industrial Products Co., Akron, O.

Duo-Therm-Barometric Dampers, Furnaces, Water Heaters, Incinerators.
Appliance Div., Motor Wheel Corp., naces, Lansing, Mich.

Duo-Tone-Aluminum Awnings. Koolvent Metal Awnings Corp. of America, Pittsburgh, Pa.

Duo-Trol-Furnaces. Holly-General Co., Pasadena, Calif.

Duplex-Roofing Cement ville, New York, N.Y. Cement. Johns-Man-

Duplex Twin-Vibration Isolating Pads. Korfund Co., Long Island City, N.Y. Dupont-Blind Rivets. Bowman Prod-

ucts Co., Cleveland, O. DuraBilt-Gravity Registers. Auer Regis-

ter Co., Cleveland, Ohio. Duraflex-Stokers. Canton Stoker Corp., Canton, Ohio.

Dura-Flex-Directional Flow Registers. Auer Register Co., Cleveland, Ohio.

Dura-Line-Registers. Auer Register Co., Cleveland, Ohio. Duridine-Chemical Cleaner. American

Chemical Paint Co., Ambler, Pa.

Duroblade—Duct Damper Regulators. Duro-Dyne Corp., Farmingdale, N. Y.

Duroglas-Water Heaters. Holly-General Co., Pasadena, Calif.

Durolite-Insulation. Insulite Div., Minnesota and Ontario Paper Co., Minne-apolis, Minn.

DusT-ban-Air Filters. Skuttle Mfg. Co., Milford, Mich.

Dust-Gard-Air Filters. American Rock Wool Co., Chicago, Ill.

Dustkop-Dust Collectors. Aget Mfg. Co., Adrian, Mich.

Dust-Magnet-Air Filters. Stoddard Industries, Inc., Cudahy, Wis.

DustRid—Dust Recovery Bags. Master-Craft Industries, Inc., Garfield, N. J. Dustronic-Electrical Air Cleaners. Radex

Corp., Chicago, Ill. DustStop-Filters. Owens-Corning Fi-

berglas Corp., New York, N. Y Dutch Boy-Paints, Flux, Solder, National Lead Co., New York, N. Y.

Dux-Sulation-Duct Insulation. Wilson, Inc., Chicago, Ill.
Duxsul-glue—Insulation Adhesives.

Grant Wilson, Inc., Chicago, Ill.
Duzall—Flux. All-State Welding Alloys Co., Inc., White Plains, N. Y.

Dycon-Filters. Continental Air Filters, Inc., Louisville, Ky.

Dynafan-Ventilators. Penn Ventilator Co., Inc,. Philadelphia, Pa. Dynaflow-Fans. South Bend Air Products, Inc., South Bend, Ind.

Dyna Line-Electric Motors. Brown-

Brockmeyer Co., Inc., Dayton, O. Dyna-V-V-Belts. Dodge Mfg. Corp., Mishawaka, Ind.

Dyne-Aire-Furnaces Direct Fired Heaters. American Foundry & Furnace Co., Bloomington, Ill.

Dynetric-Balancing Equipment. Gisholt Wis. Machine Co., Madison,

Dynoil-Solenoid Valves. McQuay-Norris Mfg. Co., St. Louis, Mo.

Dyno-Mite-Electric Drills, Buffers, Millers Falls Co., Greenfield, Mass.

E. C. Cord—V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio. EC&M-Controls. Electric Controller &

Mtg. Co., Cleveland, O.

EFM—Burners, Furnaces, and Stokers. Electric Furnace-Man, Inc., Emmaus,

EM-Motors, Electric Machinery Mfg. Co., Minneapolis, Minn.
EMC—Electric Motors. Howard Indus-

tries, Inc., Racine, Wis. E-Z.—Soot Remover. Norman Chemical

Co., St. Paul, Minn.
E-Z-Power Hack Saws. Merchandising and Mig. Associates, Inc., Lancaster,

E-Z Dux-Duct Connections. St. Clair Rubber Co., Detroit, Mich.

E-Z-Hung—Eaves Trough and Gutters. Riggin Metal Products, Inc., Lansing, Mich.

E Z Kleen-"ilters. Research Products Corp., Madison, Wis.
E Z Laid—Roof Fastening Clips. Bard

Mfg. Co., Bryan, O.

E-Z-On—Damper Clips and Tips, Damper Regulators. M. A. Gerett Corp., Milwaukee, Wis.

EZ Wash—Air Filters. Continental Air Filters, Inc., Louisville, Ky. Eagle Glass—Water Heaters. American Appliance Mfg. Corp., Santa Monica,

Eagle Super "66"—Furnace Insulation.
Eagle-Picher Co., Cincinnati, Ohio.
Eagle Supertemp—Duct Insulation.
Eagle-Picher Co., Cincinnati, Ohio.

Easternoil-Oil Burners. Eastern Oil & Equipment Co., Portland, Me.

Easyarc—Welding Rod. Air Reduction Sales Co., New York, N. Y. Easy-Flo—Solder. Handy & Harman, New York, N. Y. Easy-flo—Silver Solder. Wabash Corp.,

Chicago, Ill.
Easy-Mold—Non-Metallic Duct.

Tube and Cores Co., Chicago, Ill. Easy-Slip-Gutters, La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis.

Ecco-Diffusers. Air-Factors, Inc., Mon-

Ecco—Diffusers. Air-Factors, Inc., Monrovia, Calif.

Echo—Ceiling Ventilators. Elgo Shutter & Mfg. Co., Detroit, Mich.

Echo—Fuel Oil Filters, Tank Gages. A. B. Carlson Co., Inc., Aurora, Ill.

Eclipse—Refrigerating Compressors. Frick Co., Waynesboro, Pa.

Econo-O-Fab—Duct Connections. Duro-Dyne Corp., Farmingdale, N.Y.

Econo-miser—Oil Burners. Green Cologial Inc. Des Moines Investor. Economiser—Oil Burners, Green Colo-nial Inc., Des Moines, Iowa, Economite—Gas Burners, Mid-Continent

Metal Products Co., Chicago, Ill. Econ-O-Mizer-Cooling Towers. Acme

Industries, Inc., Jackson, Mich. Economy—Power Hack Saws. Robertson Machine and Foundry, Buffalo, N. Y. conomy-Incinerators. Comstock-Castle Economy-Incinerators.

Stove Co., Quincy, Ill.
Economy—Adjustable Buffing Hoods.
Kirk & Blum Mfg. Co., Cincinnati, Ohio.

Economy-Ventilators. Arex Company, Chicago, III.

Economy—Squaring Shears. Acme Equipment Co., Inc., Chicago, III.

Econ-O-Roll—Air Filters. Green Fuel

Economizer Co., Inc., Beacon, N. Y Econo-Watt-Electric Motors. Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso, Mich.

Edge-Master-Sheet Metal Working Machines. Engel Sheet Metal Equipment, Inc., St. Louis, Mo.

Edgeseal-Filters, Technical Filter Co., Chicago, Ill. Effico—Ventilators, Hirschman-Pohle Co.,

LeRoy, N. Y.
Effico Louver—Ventilators. HirschmanPohle Co., Inc., LeRoy, N. Y.
Eiermann—Roofers' Tools. Efsco Prod-

etermann—Rooters Tools, Etsco Prod-ucts Co., Syracuse, N.Y.
Elastikote—Paint. Tropical Paint Co., Cleveland, Ohio.
Elastite—Roof Cement. Philip Carey Mfg. Co., Lockland, Cincinnati, O.
Elasto-Rib—Vibration Isolating Pads. Korfund Co., Inc., Long Island City,

N. Y.
Elcon—Stationary Louvers, Elgo Shutter & Mfg. Co., Detroit, Mich.
Electric City—Gutter Forming Machines, Robertson Machine and Foun-

dry, Buffalo, N. Y.

Electric Janitor—Draft Damper Motors,
Hand Fired Control Systems. Minneapolis-Honeywell Regulator Co., Min-neapolis, Minn.

Electro-Cell-Electronic Air Cleaners.
American Air Filter Co., Inc., Louisville, Ky.

Electroflo-Solenoid Valves. Hays Mfg. Co., Erie, Pa

Co., Erie, Pa.

Electro-Flux-Stik—Soldering Flux. Lake
Chemical Co., Chicago, Ill.

Electro-Klean—Electronic Air Cleaners.
American Air Filter Co., Inc., Louis-

ville, Ky. Electrolaire-Air Conditioning Furnaces Electrol Burner Mfg. Co., Rutherford,

N. J. Electro-Matic—Electronic Air Cleaners. American Air Filter Co., Inc., Louis-

ville, Kv. Electromaze—Electronic Air Cleaners. Air-Maze Corp., Cleveland, Ohio. Electro-Mesurflo—Solenoid Valve. Hays

Mfg. Co., Erie, Pa. Electro-Mist-Dust Collectors. American

Air Filter Co., Inc., Louisville, Ky. Electromite—Solenoid Valves. Hay Havs Mfg. Co., Erie, Pa.

Electro-PL-Electronic Air American Air Filter Co., Louisville,

Electro-Sheet-Roofing. American Brass Co., Waterbury, Conn.

Electro-Staynew-Electrical Air Cleaners. Dollinger Corp., Rochester, N. Y. Electro-Valve-Solenoid Valves. Sciaky

Bros., Inc., Chicago, Ill.
Electro-Wind-Ventilators. Allen Cooler & Ventilator Inc., Rochester, Mich. Electrunite—Tubing, Steel & Tubes Div.,

Republic Steel Corp., Cleveland, Ohio. Elektra—Throwaway Air Filters. Ex-traer, Inc., Houston, Tex.

traer, Inc., Houston, Tex.

Elgin-Louvers and Shutters. Elgo Shutter & Mfg. Co., Detroit, Mich.

Emco-Fusible Links, Metal Sheets, Solder. Empire Metal Co., Syracuse, N.Y.

Eljay-Water Heaters. W. L. Jackson Mfg. Co., Inc., Chattanooga, Tenn.

Empire-Mallets. Greene, Tweed & Co., North Wales, Pa.

Empire-Refractories A. P. Green Fire

Empire-Refractories. A. P. Green Fire

Brick Co., Mexico, Mo.
Emulsoprep—Metal Cleaners. Neilson
Chemical Co., Detroit, Mich.

Enamelclad-Roofing Paint. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio. Endo-Duct Dampers. Elgo Shutter &

Mfg. Co., Detroit, Mich.

End O' Soot—Fuel Oil Tank Solvent.

Stewart-Hall Chemical Corp., Mt.

Vernon, N. Y.

Epco-Perforated Metals. Erdle Perforating Co., Rochester, N. Y. Era-Furnaces. Excelsior Steel Furnace Co., Chicago, Ill.

Era Exl-Air-Furnaces. Excelsior Steel

Furnace Co., Chicago, Ill. Eraydo Alloy—Metal Sheets, Roofing. Illinois Zinc Co., Div. of Hydrometals Inc., Chicago, Ill.

Eroduct-Insulation, Baldwin-Ehret-Hill. Inc., Trenton, N. J.

Ervaduct—Prefabricated Metal Ducts. Er-vite Corp., Eric, Pa. Erveen—Curtain Wall Panels. Ervite

Corp., Erie, Pa.

Esco-Refractories, Smoke Pipe Dampers. Furnace Repair Parts. Eselgroth &

Co., Roselle, N. J.

Esso—Furnaces, Oil Burners. Gilbert &
Barker Mfg. Co., West Springfield, Mass

Mass.

Eternit—Non-Metallic Sheets, Ruberoid
Co., New York, N. Y.

Eternium—Paint. Barrett Div., Allied
Chemical & Dye Corp., New York,

Eveco-Mutual-Barometric Dampers. Mutual Mfg. Co., Flushing, N. Y Even-Temp-Furnaces, Northwest Metal

Products, Inc., Seattle, Wash.
Everdur—Plates, Sheets, Welding Rod.
American Brass Co., Waterbury, Conn.
Everedy—Oil Burners. Mt. Hawley Mfg.

Co., Peoria, Ill. Everglas—Water Heaters. Hotstream

Heater Co., Cleveland, O. Everjet-Roofing Paint. Barrett Div.,

Allied Chemical & Dye Corp., New York, N. Y. Ever-last-Air Filters. Master Products

Co., Chicago, Ill.

Everlasting—Fastenings. H. M. Harper Co., Morton Grove, Ill. Excello—Saw Blades. Price & Rutzebeck,

Hayward, Calif. Exhaustalyzer-CO2 Analyzers. Engelhard Industries Inc., Instruments & Systems Div., East Newark, N. J. Exhaustmaster—Roof Ventilators, E. Van

Noorden Co., Boston, Mass.

Exhaust-O-Vent—Garage Exhaust Fittings. The Engwald Corp., Inwood, L.L. N.Y

Exidust-Dust Collectors, Allen Billmyre Div., Lamson Corp., Syracuse, N. Y. Expand-R-Strap-Insulation Fastening Fastenings.

A. J. Gerrard & Co., Melrose Park,

Expanslip-Fireplace Draft Dampers. Bennett-Ireland, Inc., Norwich, N. Y.

FAS—Make-up Air Units. L. J. Wing Mfg. Div., Aero Supply Mfg. Co., Inc., Linden, N. J. F & E—Underfeed Stokers. Flynn &

Emrich Co., Baltimore, Md. F Electric-Fan Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y. Fab-Ric—Flexible Duct Connections.

Fabricote—Waterproofing, Wasco Products, Inc., Cambridge, Mass.
Fabri-Flex—Vibration Isolating Bases

and Pads. Vibration Mountings, Inc., Corona, N. Y. Fabrikated—Faces, Grilles, Registers.

abrikated—Faces, Grilles, Registers. Independent Register Co., Cleveland,

Fan-Air-Gas Burners. Mettler Co., Inc., Los Angeles, Calif. Fanaire-Diffusers. Auer Register Co., Cleveland, O.

andaire—Unitary Air Conditioners, Condensers. Aimco Products Corp., Inc., Subsidiary of Yuba Consolidated Industries, Inc., Tulsa, Okla. Fandaire—Unitary Industries, Inc., Tulsa, Okla. Far-Air—Evaporative Coolers,

Farr Co., Los Angeles, Calif.
Farco-Soldering Flux. Farrelloy Co., Inc., Philadelphia, Pa.

Fargail-Soldering Flux. Farrelloy Co., Philadelphia, Pa. Farmotor—Electric Motors. Franklin

Electric Co., Inc., Bluffton, Ind. Farsol—Soldering Flux. Farrelloy Co., Inc., Philadelphia, Pa.
Fashion—Controls. White-Rodgers Co.,

St. Louis, Mo. Fastak-Insulation Adhesive. Cain Mfg. Inc., Birmingham, Ala.

FauceHot-Water Heaters. Bastian-Mor-

ley Co., Inc., La Porte, Ind.
Featherfin—Coils. L. J. Wing Mfg. Div.,
Aero Supply Mfg. Co. Inc., Linden,

Federal—Fuel Oil Filters. Norwood Products Co., Div. A. R. Wood Mfg. Co., Luverne, Minn. Federal—Oil Filters. Tool Industries,

Inc., Detroit, Mich. Stoneware Co., New York, N.Y.
Feltex—Roofing Felt. Philip Carey Co.,
Lockland, Cincinnati, Ohio.
Felt-Grip—Vibration

Felt-Grip—Vibration Isolating Bases and Pads. Vibration Mountings, Inc.,

Corona, N. Y. Fenn's Rotary—Roof Ventilators. Waverly Heating Supply Co., Beverly, Mass

Ferro-Boldering Flux. Linde Air Prod-ucts Co., New York, N. Y. Ferro-Bord—Metal Roof Decking. Republic Steel Corp., Cleveland, O., also

Truscon Div., Youngstown, O. Ferro-Therm—Reflective Insulation.
American Flange & Mfg. Co., Inc.,
New York, N. Y.

Ferroweld—Welding Rod. Lincoln Elec-tric Co., Cleveland, O. Festoon—Metal Sheets. United States Gypsum Co., Chicago, Ill.

Feutron-Fibers for Air Filters. American Felt Co., Glenville, Conn. Fiber-Aire—Roof Ventilators. Swartwout Fabricators, Inc., Kokomo, Ind.

Fibercote—Roofing Paint. Midland Paint & Varnish Co., Cleveland, Ohio. Fiberglas-Insulation, Non-Metallic Duct.

Owens-Corning Fiberglas Corp., New York, N. Y Fiber Glass-Insulation. Pittsburgh Plate

Glass Co., Pittsburgh, Pa. Fiberkote-Roofing Cement. Mfg. Corp., Tonawanda, N. Y. Fiberlite—Insulation. Insulite Div., Min-

nesota and Ontario Paper Co., Minneapolis, Minn.

Fiberock—Asbestos Paper, Roofing Felt.
Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio. Fiber Seal-Paint. Midland Paint & Var-

nish Co., Cleveland, O. Fibre Coating—Roofing Paint. Philip Carey Mfg. Co., Lockland, Cincinnati,

Ohio broid—Asbestos Paper. Johns-Man-ville, New York, N. Y. bronized—Plastic Tubing. Irvington Fibroid-Ashestos

Fibronized-Plastic Varnish & Insulator Co., Irvington,

Fil-O-Matic-Fuel Oil Tank Gages. Kresno-Stamm Mfg. Co., Palisades Park, N. J.

N. J. Filtaire—Ventilating Hoods. Morrison Products, Inc., Cleveland, O. Filter Chek—Filter Resistance Gages. Rex Metal-Craft, Inc., Indianapolis, Ind.

Filter Power-Dust Recovery Bags. Master-Craft Industries, Inc., Garfield, N. J.

Fil-thru-Oil Tank Gauge. Applied Mechanics Co., Boston, Mass.

Filtr-Aire-Filters. A C Products, Inc., Houston, Tex. Filtrex-Filters. Drico Industrial Corp., Passaic, N. J.

Fin-Flex—Directional Flow Registers.
Auer Register Co., Cleveland, Ohio.
Finger-Strap—Insulation Fastenings. Gerrard & Co., A. J., Melrose Park,

Finnflex-Vibration Isolating Bases. T. R. Finn & Co., Inc., Hawthorne, N. J. Fire Ball—Gas Burners. Johnson Gas Appliance Co., Cedar Rapids, Iowa. Firebox—Combustion Chambers. Sid

Harvey, Inc., Valley Stream, N. Y.
Firecrete—Refractories. Johns-Manville, New York, N. Y.

Fireguard-Stokers-Eddy Stoker Corp., Wheeling, Ill. Fireite—Cement. Johns-Manville, New York, N. Y.

Fire-Snuf-Plastic Panels, Resolite Corp., Zelienople, Pa. Fire-Swirl-Baffles, Zeh Co., Inc., Pas-

Fire-Swiri—Danies, Sociation, Saic, N. J.
Fire Vent—Roof Ventilators. E. Van
Noorden Co., Boston, Mass.
Firewel Health Aire—Furnaces, Victory

Mfg. Co., Inc., Lancaster, N. Y.

Fireye—Controls. Combustion Control

Div., Electronics Corp. of America, Cambridge, Mass. Firma-Ventilators. Hirschman-Pohle Co.,

Inc., LeRoy, N. Y.
Firomatic—Fuel Oil Filters, Vent Caps,
Oil Burner Fittings, Valves. MorseSmith-Morse Co., Watertown, Mass.
Fit-Al—Saw Blades, Independent Blade

Co., Div. Westlund Industries, East Haven, Conn.

Fitrite—Snow Guards, Gutter Accessories, Chimney Cap Frames, Skylight Lifts, Tools. David Levow, Inc., South Hackensack, N. J. Fixit—Roof Cement. National Mfg.

Corp., Tonawanda, N. Y. Fixt-Aire—Registers and Grilles. H & Cooley Mfg. Co., Holland, Mich.

Flame Chief-Combustion Chambers. Iron-Hide Sales Co., Matawan, N. J. Flame-Otrol—Controls. Wheelco I struments Div., Barber-Colman Co., Rockford, Ill. Flame Pulse-Controls. General Controls

Co., Glendale, Calif. Flatjet-Water Nozzles. Spraying Systems Co., Bellwood, Ill.

Flatpak—Prefabricated Ducts and Fit-tings. Viking Mfg. Corp., Cleveland, Ohio

Ohio.
Flat-Topp—Paint. Philip Carey Mfg.
Co., Lockland, Cincinnati, Ohio.
Fleet Line—Electric Motors. BrownBrockmeyer Co., Inc., Dayton, O.
Fleetweld—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.
Flexarc—Arc Welders. Westinghouse
Electric & Mfg. Co., Pittsburgh, Pa.
FlexBoard—Non-Metallic Sheets. JohnsManville, New York, N. Y.
Flexcell—Bases and Pads Celetey Corp.

Flexcell-Bases and Pads. Celotex Corp., Chicago, Ill.

Flexifyte—Flexible Duct. Flexible Tubing Corp., Guilford, Conn.
Flex-Hose—Flexible Metal Hose and Fittings. Korfund Co., Long Island City, N. Y.

Flexiblac-Paint. Samuel Cabot, Inc., Boston, Mass.

Boston, Mass.
Flexi-Blade—Registers. Air-Factors, Inc., Monrovia, Calif.
Flexi-Duct—Duct Connections. Grant Wilson, Inc., Chicago, Ill.
Flexiflo—Air Diffusers. Universal Diffuser Corp., Tuckahoe, N. Y.
Flexon—Flexible Metal Hose and Fittiese.

tings. Flexonics Corp., Maywood, Ill. Flex-Plates—Vibration Isolating Bases. Vibration Mountings, Inc., Corona,

Flexstone—Roofing Felt. Johns-Manville, New York, N.Y.

Flextop—Roofing Paint. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio. Flex-Tube—Draft Indicating Gages. F. W. Dwyer Mfg. Co., Michigan City,

Flex-Vent—Ducts. Flexible Tubing Corp., Guilford, Conn. FloatingAir—Air Conditioning Units. Friedrich Refrigerators, Inc., San An-

Tex Float-O-Matic-Condensate Pumps. March Mfg. Co., Skokie, Ill.

Flo-Co-Furnaces and Gas and Oil Burners. Floral City Heater Div., United States Air Conditioning Corp., Monroe Mich.

Flo-Master-Louvers and Shutters. Acme Engineering & Mfg. Corp., Muskogee,

Floret-Air Velocity Meters. Bacharach Industrial Instrument Co., Pittsburgh,

FloRite—Air Velocity Meters. Bacharach Industrial Instrument Co., Pittsburgh,

Florite Desiccant-Dehumidifier, Floridin Co., Tallahassee, Fla.

Flosol-Soldering Flux. American Chemical Paint Co., Ambler, Pa. Flow-Cold—Cooling Towers. Ambler, Pa. Acme In-

Flow-Cold—Cooling Towers. Acme Industries, Inc., Jackson, Mich.
Flowing Heat—Furnaces. Sam Daniels
Mfg. Co., Inc., Hardwick, Vt.
Flow-Mizer—Condensers. Acme Indus-

riow-Mizer—Condensers. Acme Indus-tries, Inc., Jackson, Mich.
Flow-Temp—Air Conditioning Units.
Acme Industries, Inc., Jackson, Mich.
Flualyzer—Portable CO, Analyzer. Chas.
Engelhard Industries Inc., Instruments
& Systems Div., East Newark, N. J.

Flu-Bonnet—Chimney Caps and Tops. Tesco, Inc., Tulsa, Okla. Flux-'N-Solder—Solder. Johnson Mfg. Co., Inc., Mount Vernon, Ia.

Fluxrite-Flux. National Lead Co., New

York, N. Y.

Flux-Stik—Soldering Flux. Lake Chemical Co., Chicago, Ill.

Foamglas—Insulation. Pittsburgh Plate Glass Co., and Pittsburgh Corning Corp., Pittsburgh, Pa.

Foamsil—Insulation. Pittsburgh Corning Corp., Pittsburgh, Pa. Foil-Champ—Building Insulation. Lud-

low Papers, Inc., Needham Heights.

Forbes Amvent-Ventilators. Western Engineering & Mfg. Co.,

Forbes Econovent-Ventilators. Western Engineering & Mfg. Co., Venice, Calif. Forbes Syphonaire—Ventilators. West-ern Engineering & Mfg. Co., Venice, Calif.

Force-Flo-Wall Furnaces. Commonwealth Co., Alhambra, Calif.

Formex 77-Caulking Compound. Travaco Laboratories, East Boston, Mass. Formula 67-Sheet Metal Paint. Babbitt

Chemical Co. Inc., New Bedford, Mass. orsaire—Furnaces. Williams Furnace Forsaire-Furnaces. Co., Buena Park, Calif.

Forway—Expansion Anchors. U. S. Expansion Bolt Co., York, Pa.

Foundation Ctg.—Waterproofing. Philip

Carey Mfg. Co., Lockland, Cincinnati, 0

4-Way-Flow-Registers. United S Register Co., Battle Creek, Mich. Fracto-Crete-Castable Refractories. Ram-

tite Co., Chicago, Ill. Fraser-Furnaces. Basford Mfg. Co., San

Francisco, Calif. Ventilators. Burt FreeExhaust-Roof Mfg. Co., Akron, Ohio

Free Flow-Filters. Wickford Products, Inc., New York, N. Y.

Free Flow-Roof Ventilators, Burt Mfg. Co., Akron, Ohio
Freeport—Oil Burners. Arrow Foundry

Co., Freeport, Ill. Free-Vane-Controls, Bristol Co., Water-

bury, Conn.

Fre-Flo—Furnaces. Sequoia Mfg. Co., San Carlos, Calif. Freightmaster—Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.
Freon—Refrigerants. E. I. du Pont de
Nemours & Co., Inc., Wilmington,

Frost-Tite-Copper Tube Fittings. Remco, Inc., Zelienople, Pa.
Fuelatrol—Oil Burners, Furnaces and

Stokers. Premium Coal & Oil Co., Cincinnati, Ohio.

Fuel Door-Gas Burner, Handley-Brown

Fuel Door—Gas Burner. Handley-Brown
Co., Jackson, Mich.
Fuel-O-Meter—Fuel Oil Gages. Sid
Harvey, Inc., Valley Stream, N. Y.
Fuel-Saver—Draft Regulator. Walker
Mfg. & Sales Corp., St. Joseph, Mo.
Fueltone—Oil Tank Solvent. Ampion
Corp., Long Island City, N. Y.
Fuel-tron—Fuel Oil Tank Solvents. Radiator. Specialty Co. Charlotte N. C.

diator Specialty Co., Charlotte, N. C. Fulflo-Oil Filters. Commercial Filters

Corp., Melrose, Mass.
Fulljet—Water Nozzles. Spraying Systems Co., Bellwood, Ill.
Fulscope—Control Systems. Taylor In-

strument Companies, Rochester, N.Y.
Furnacestat—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis,

Minn. Fuseair—Diffusers. Aladdin Heating Corp., Oakland, Calif. Fyr-Fly—Oil Burners. Breeze Corps., Inc., Newark, N. J.

Fyre-Mortar—Insulating Cement. Quig-ley Co., Inc., New York, N. Y. Fyrite—CO. Analyzers. Bacharach In-dustrial Instrument Co., Pittsburgh, Pa.

G

G-6—Paint Spray Guns. Eclipse Air Brush Co., Newark, N.J. GAT—Paint Spray Guns. Eclipse Air Brush Co., Newark, N.I.

G. B. C .- Blowers, General Blower Co., Inc., Philadelphia, Pa.

G-B Duct-Non-Metallic Ducts. Gustin-Bacon Mfg. Co., Kansas City, Mo.
G/C—Controls. General Controls Co.,

Glendale, Calif. G-E-Air Conditioning Units, Oil Burners, Heating and Cooling Coils. Compressors, Furnaces. General Electric

Co., Bloomfield, N. J.
G-E—Controls, Soldering Coppers, Motors, Transformers, Welders. General Electric Co., Apparatus Sales Div., Schenectady, N. Y.

G-E-Controls. General Electric Co., Appliance Control Dept., Morrison, Ill.
G-E-Germicidal Lamps. General Elec-

tric Co., Cleveland, Ohio.
G.I.—Blowers. New York Blower Co., Chicago, III.

GS—Anemometers, Thermometers, Hygrometers, Psychrometers, CO<sub>1</sub> Analyzers, General Scientific Equipment Co., Philadelphia, Pa.

Galbestos-Roofing. H. H. Robertson

Co., Pittsburgh, Pa.
Galongage—Oil Tank Gauge. Applied Mechanics Co., Boston, Mass. Galva-Flux—Soldering Flux. London

Chemical Co., Chicago, Ill.
Galvaprep—Rust Preventive Chemicals.

Neilson Chemical Co., Detroit, Mich. Galv-Kote—Zinc Paint. Geo. H. Ohmer Co., Dayton, Ohio.

Gar Wood-Furnaces, Enico Products. Detroit, Mich.

Gar Wood-Furnaces. Engineering Industries Co., Ltd., Toronto, Ont. Canada.

Gasaver—Furnaces, Gas Burners, The Williamson Co., Cincinnati, Ohio. Gas Mizer-Furnaces, Floral City Heat-

er Co., Monroe, Mich.
Gas-O-Matic—Gas Burners & Furnaces.
Williams Oil-O-Matic Heating Co., Div. of National Union Electric Corp.,

Columbus, O. Gasweld-Torches. General Dynamics Corp., Liquid Carbonic Div., Chicago,

Gat Fasteners—Duct Hanging Clamps, Insulation and Sheet Metal Fastenings, Pronged Nuts. Geo. A. Tinner-

man Corp., Cleveland, O.

GearMotoR—Electric Motors. Philadelphia Gear Corp., Philadelphia, Pa.

Gehl—Stokers. Eddy Stoker Corp.,

Wheeling, Ill.

Gem—Gas Conversion Burners, Cooling Coils, Condensing Units, Furnaces, Air Conditioning Units. Columbia Burner Co., Toledo, O.

Gemaco-Compressors. General Machinery Co., Spokane, Wash. Gemco-Insulation Fastenings. Goodloe E. Moore, Inc., Danville, Ill.

Gemware—Hygrometers. Psychrometers, Thermometers. G. M. Mfg. Co., New York, N. Y.

Genasco—Roof Cement and Roofing Felt. Keasby & Mattison Co., Ambler,

General-Water Heaters. Republic Products Co., Philadelphia, Pa.
General Giant—Furnace Vacuum Clean-

ers. Meyer & Sons, Inc., Skokie, Ill. Genetron-Refrigerants. General Chemical Div., Allied Chemical Corp., New York, N.Y.

Genie-Air-Roof Ventilators. Flex-Air, Inc., Los Angeles, Calif. Genoco-Oil Burners. General Oil Heat-

ing Corp., West New York, N. J. Geon-Plastics, B. F. Goodrich Chemical Co., Cleveland, O.

Germicidal—Sterilizing Lamp, General Electric Co., Cleveland, Ohio. Giant-Oil Burners. Breeze Corps., Inc., Newark, N. I.

Gilbarco-Furnaces, Oil & Gas Burners. Gilbert & Barker Mfg. Co., West Springfield, Mass.

Gilco-Water Heaters. J. L. Gillen Co., Dowagiac, Mich.

Gil Governoret-Gas Pressure Regulating Valves. Gas & Oil Industry Laboratories, Inc., Irvington, N. J. Gil Nohum—Valves. Gas & Oil Indus-

try Laboratories, Inc., Irvington, N. J. Gilsalume—Paint. United Gilsonite Laboratories, Scranton, Pa.

Glasfab-Roofing Felt. Lexsuco, Inc., Solon, O.

Glassloss—Air Filters. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Glass Armor—Patching Material Fuel Oil Tanks. Chicago Lining Inc., Chicago, Ill. Glazola-Caulking Compounds. Nebel

Mfg. Co., Cleveland, Ohio.
Glo-Cone—Gas Burners. Geisel Mfg.,
Inc., Elyria, Ohio.
Glo-Fye—Oil Burners. Breeze Corps.,

Inc., Newark, N. J.

Glo-Ring—Gas Burners. Lennox Indus-

tries Inc., Marshalltown, Iowa. Glowan—Gas Burners. J. O. Martin Co., Inc., San Francisco, Calif.

Gnome-Oil Burners. Breeze Corps.,

Inc., Newark, N. J.

Go-Eze—Damper Regulators. Severson

Mfg. & Supply Co., Milwaukee, Wis.

Gold Bond-Louvers and Shutters, Insulation. National Gypsum Co., Buffalo, N. Y.

Gold Bond-Gimco-Rock Wool Prod-

ucts, Insulating Cement. National
Gypsum Co., Buffalo, N. Y.
Gordon—Gas Burner Pilot Controls,
Gas Unit Heaters. Roberts-Gordon
Appliance Co., Buffalo, N. Y. Gordon-Air-Furnaces. Roberts-Appliance Co., Buffalo, N. Y. Roberts-Gordon

Gordon Spreader-Flame-Gas and Gas-Oil Burners and Furnaces, Roberts-Gordon Appliance Corp., Buffalo. NY.

Gradutrol-Pneumatic Controls, Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Granodine Coating Process. Ame Chemical Paint Co., Ambler, Pa Greastop-Filters. Air-Maze Corp., Cleve-land, Ohio.

Green Hornet-Stud Guns, Mine Safety Appliances Co., Pittsburgh, Pa. Green-X-Refractories, A. P. Green Fire

Brick Co., Mexico, Mo.
Greyhound Portable—Spot Welders.

Ouro-Dyne Corp., Farmingdale, N. Y.
Griploc—Flexible Duct Connections.
Duro-Dyne Corp., Farmingdale, N. Y.
Gripsco—Snips and Shears, Pliers,
Wrenches. H. R. Basford Co., San Francisco, Calif.

Gross Aire-Stokers. Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., St. Louis, Mo.

Gum-Bestos—Adhesive Tape for Ducts. Grant Wilson, Inc., Chicago, Ill. Gun-Heat—Gas Burners. Barber Mfg. Co., Cleveland, O.

Gun Mix-Refractories. Ramtite Co., Div. S. Obermayer Co., Chicago, Ill. un-Ram-Refractories. Ramtite C Gun-Ram—Refractories. Ramtite Co., Div. S. Obermayer Co., Chicago, Ill. Gusher—Evaporative Cooler Recirculating Pumps. Ruthman Machinery Co.,

Cincinnati, O. Gutter-Guard-Gutter Accessories. curate Sheet Metal & Mfg. Works, Chicago, Ill.

Gutt'r Cutt'r—Gutter Tools. Hughes Mfg. Co., Norfolk, Va. Gyra-Flow—Ventilators. Chicago Blower

Corp., Franklin Park, Ill.

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H&C-Damper Clips, Dampers, and Registers and Grilles. Hart & Cooley Mfg. Co., Holland, Mich.

H&K-Perforated Metals. Harrington & King Perforating Co., Inc., Chicago,

H-M-Gas Pressure Regulating Valves. Thermac Co., Corona, Calif. H-Panels-Curtain Wall Panels. H. H. Robertson Co., Pittsburgh, Pa.

Hair Glass-Filters. H. J. Somers, Inc., Detroit, Mich.

Hall-Neal Furnace Halco-Furnaces. Hall-Co., Indianapolis, Ind.

Hallmark—Oil Burners, Furnaces. Heating Specialties Inc., Baltimore, Md. Hammer-Sets-Expansion Bolts. R. plug Co., Inc., New York, N. Y. Rawl-

Hammock—Throwaway Filters. Lennox Furnace Co., Marshalltown, Ia.

Handlead—Lead Roofing Sheets. I tional Lead Co., New York, N. Y. Handnib-Punches. Heinrich Tools, Inc., Racine, Wis.

Handomatic-Welding Rod. Eutectic Welding Alloys Corp., Flushing, N. Y. Handy-Duct, Duct Accessories, Furnace Pipe and Fittings. F. Meyer & Bro. Co., Peoria, Ill.

Handy-Flux-Soldering Flux. Handy & Harman, New York, N. Y. Hardlead-Lead Roofing. National Lead

Hardlead—Lead Rooning, National Lead Co., New York, N. Y. Hardy—Button Presses and Squeezer Tongs. Interstate Drop Forge Co., Special Products Div., Milwaukee,

ealth-Air—Electronic Air Mamco Corp., Racine, Wis. earth Crete—Refractories. Health-Air-Electronic Cleaners Quigley

Co., Inc., New York, N. Y.

Heat-Aid—Refractories. Pyrolite Products Co., Cleveland, Ohio.

Heat Chaser-Air Conditioning U Units Heatcote—Paint. Debevoise Co., Brook-lyn, N. Y.

Heat Eye-Heating Plant Failure Alarms. Herbert Fuel Devices, Darien, Conn

Heat Holder—Baffles. Sid Harvey, Inc., Valley Stream, N. Y. Heatilator—Metal Fireplaces, Draft

Dampers for Fireplaces. Vega Indus-

tries, Inc., Syracuse, N. Y.
Heat-Pak—Oil Burners, Water Heaters.
Aldrich Co., Wyoming, Ill. Heatpanel—Furnaces. Associated Prod-ucts. Beverly Hills. Calif.

Heat-Rem-Aluminum Paint. Speco, Inc., Cleveland, Ohio. Heat-Rite-Gravity Registers. Auer Reg-

ister Co., Cleveland, Ohio. Heat Seal—Furnace Cement and Insulation. Baldwin-Ehret-Hill, Inc., Tren-N. J. ton.

Wagon-Portable Furnaces, Lennox Industries, Inc., Marshalltown, Ia. eatwave—Air Conditioning Ur Heatwave—Air Conditioning Units,
Floor and Wall Furnaces. Southwest
Mfg. Co., Aurora, Mo.
Heat-X-It—Roof Ventilators. Octagon
Ventilator Co., Chicago, Ill.

Heavy Duty-Pneumatic Hammers. Superior Pneumatic & Mfg., Inc., Cleveland, O.

He-DeWe—Fuel Unit Bellows. Sid Harvey, Inc., Valley Stream, N. Y. Heet-Master—Kettles. Aeroil Products Co., Inc., South Hackensack, N. J.

Hellite-Refractories. Johns-Manville, New York, N. Y.

Helwig-Button Presses and Squeezer Tongs. Interstate Drop Forge Co., Special Products Div., Milwaukee,

Helyx-Drive Screws, Nails. Hillwood Mfg. Co., Cleveland, Ohio.

Heresite-Pipe and Fittings. Heremetal Co., Minneapolis, Minn.

Herkimer-Cleaning Compounds, Water Conditioning Compounds. City Chemical Corp., New York, N. Y.

Herman-Skylight lifts. Main Cornice Works, Inc., Los Angeles, Calif. Herman Nelson-Blowers, Fans, Gas

Heaters. American Air Filter Co., Inc., Louisville, Ky.

Hex Mesh-Skylight Wire Glass. Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn.

Hex Mesh Aklo-Skylight Wire Glass. Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn.

Hi-Cor-Solder. Alpha Metals, Inc., Jersey City, N. J.

Hicycle-Electric Tools. Chicago Pneumatic Tool Co., New York, N. Y. Hi-Degree Paint. Cheesman-Elliot Co., Inc., Brooklyn, N. Y.

Hi-Dri-Refrigerant Dehydrators. Wabash Corp., Chicago, Ill.

Hi-Duty-Copper Tube Fittings. Imperial Brass Mfg. Co., Chicago, Ill.

HI-Duty—Combustion Chambers. Monogram Products Co., Philadelphia, Pa. Hi-Ex—Fans and Roof Ventilators. Penn

Ventilator Co. Inc., Philadelphia, Pa. High Alumina Plastic—Refractories. A. P. Green Fire Brick Co., Mexico, Mo. High-Duty—Humidifier Valves, Maid-O'-Mist, Inc., Chicago, Ill.

High-Ten-No. 500-Flux. Industrial Service Laboratories, Milwaukee, Wis. Hi-Hoist—Hand Operated Hoists f Sheet Metal Ducts. Lantz Mfg. Co., Inc., Valparaiso, Ind.

Hilshear—Rod Cutting Machines. John Ould (USA) Ltd., Mt. Vernon, N. Y. Hi-Man—Alloy Plates. Inland Steel Co., Chicago, Ill.

Hi-Rate-Water Heaters. Holly-General Co., Pasadena, Calif.

Hi Seal-Copper Tube Fittings. Imperial Brass Mfg. Co., Chicago, Ill. Hi-Speed—Electric Dimpler. York Elec-tric Tool Co., York, Pa.

Hi-Speed-Nibblers, Slitters, Shears. Libert Machine Co., Green Bay, Wis. Hi-Speed—Welding and Cutting Apparatus. Dockson Corp., Detroit, Mich.

Hi-Temp—Insulation, Philip Carey Mfg. Co., Lockland, Cincinnati, O. Hi-Thred—Screws, Parker-Kalon Div. of General American Transportation Corp., Clifton, N. I.

Hoffman—Water Heaters. Clayton & Lambert Mfg. Co., Louisville, Ky. Hold Heat—Soldering Coppers. Turner Brass Works, Sycamore, Ill.

Holdowns-Duct and Pipe Anchors, Accurate Sheet Metal & Mfg. Works, Chicago, Ill.
Holegrip—Sheet Metal Fastenings. Fabri-

cated Products Co., West Newton, Pa. Holesaws-Saw Attachment. Millers Falls Co., Greenfield, Mass. Holgun—Portable Electric Drills. Black

& Decker Mfg. Co., Towson, Md. Holly Glen-Water Heaters. Hollywood Water Heater Co., Los Angeles, Calif. Holtite-Screws. Continental Screw Co.,

New Bedford, Mass. Homco-Furnaces, Siebring Mfg. Co., George, Ia.

Home—Oil Burners. Sid Harvey, Inc., Valley Stream, N. Y.

Home Weathermaker-Air Conditioning Units Carrier Corp., Syracuse, N. Y Horneblende—Roof Cement, Water proofing. North American Mogu Waterproofing. North American Products Co., Cleveland, O.

Hornlume—Roofing Paint. A. C. Horn Co., Long Island City, N. Y. Horn-O-Tone—Paint. A. C. Horn Co., Inc., Long Island City, N. Y.

Hostess-Gas Water Heaters, Luxra Co., Atchison, Kans.

Hot Blast-Furnace Cement. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio Hot-Flo-Gas Water Heaters.

Heater Co. of No. Calif., Oakland, Calif.

Hot Spot—Electric Welders. Acme Elec-tric Welder Co., Los Angeles, Calif. Howell—Oil Burners. Kol-Master Corp., Oregon, Ill.

Huber-Overfeed Stokers. Flynn & Emrich Co., Baltimore, Md. Hudee' Aire—Humidifiers.

Walter E. Selck & Co., Chicago, Ill. Humiclean-Cleaning Compound. Caro-

lina Aniline & Extract Co., Charlotte,

Humid-Air-Evaporative Humidifiers. Hansen Tool & Die Co., Milwaukee,

Humidex-Water Conditioning pounds for Humidifiers. Skuttle Mfg. Co., Milford, Mich. Humidigraph-Hygrometers. Bristol Co.,

Waterbury, Conn.
Humidiguide—Humidistats. Taylor In-strument Companies, Rochester, N. Y.

Humidimatic—F u r n a ce Humidifiers.
Skuttle Mfg. Co., Milford, Mich.
Humidomist—Nozzles. Supreme Elec.
Products Corp., Rochester, N. Y.
Humidostat—Hygrometers, Johnson Serv-

ice Co., Milwaukee, Wis. Hum-I-Dri—Dehumidifiers. Speco, Inc.,

Cleveland, O. Humid-u-stat—Humidistat. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Humistat—Humidistats. American In-strument Co., Inc., Silver Spring, Md. Husky—Presses and Dies. Fallsington

Mfg. Co., Fallington, Pa.

Husky-Lite—Combination Machines. Maplewood Div., Rockford Machine Tool Co., Rockford, Ill. Hydralt—Waterproofing. Flintkote Co.,

New York, N. Y.

Hydramotor—Gas Pressure Regulating Valves. General Controls Co., Glendale, Calif.

Hydraulic-Action-Controls. White-Rodg-

ers Co., St. Louis, Mo.

Hydrocide—Waterproofing. L. Sonneborn Sons, Inc., New York, N. Y.

Hydronon—Waterproofing. Barret Div.,

Allied Chemical & Dye Corp., New York, N. Y.

Hydro-T-Metal—Zinc Sheets. Illinois Zinc Co., Div. of Hydrometals Inc., Chicago, Ill.

Hydro-Whirl—Dust Collectors. DeVilbiss Metal Fabricators Co., Detroit, Mich.

Hygrothermograph-Humidity Recorders. Fries Instrument Div., Bendix Aviation Corp., Baltimore, Md.

Hyduty—Ventilators. Davidson Hyduty Roof Fan Co., Newton, Mass. Hy-Power—Snips and Shears. Wiss & Sons Co., J., Newark, N. J. Hyspar—Cements, Caulking Compounds.

Roof Paints, Midland Paint & Varnish Co., Cleveland, Ohio.

Hytempite—Furnace Cement. Quigley Co., Inc., New York, N. Y.

IC-Pak-Evaporative Cooler Mats. Palmer Industries, Inc., Phoenix, Ariz. I.P.F .- Fans, Non-Metallic Duct. Indus-

trial Plastic Fabricators, Inc., Norwood, Mass.

P M-Roof Cement, Caulking Compounds, Paint. Iowa Paint Mfg. Co., Inc., Des Moines, Ia.

IVCO-Ventilators. Iona Ventilator Co.,

Inc., Philadelphia, Pa. leal-Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Brush Co., Worcester, Mass.

Ideal-Nozzle extractor. Boston Machine Works Co., Lynn, Mass.

Ideal-Furnace Pipe and Fittings. Riggin

Metal Products, Inc., Kankakee, Ill. Ideal—Roofing Nails. Tennessee Coal and Iron Div., U. S. Steel Corp., Fair-

Idealarc-Arc Welders. Lincoln Electric Co., Cleveland, O. Idler-Recirculating Pumps. G & S Mfg.

Co., Phoenix, Ariz.

ligette-Kitchen Exhaust Fans. Ilg Electric Ventilating Co., Chicago, Ill.

Illbronze-Aluminum Paste and Powder. Illinois Bronze Powder Co., Inc., Chicago, Ill.

Immersatherm-Domestic Hot Control. Merceid Corp., Chicago, Ill. Imperial—Evaporative Coolers, Interna-tional Metal Products Co., Phoenix, Aria

Ariz.
Imperial—Baseboard Diffusers. KrauserBoyd, Inc., North Tonawanda, N. Y.
Imperial—Pillow Blocks. Anti-Friction
Bearings Co., Los Angeles, Calif.
Imperial—Registers. Vectaire Mfg. Co.,
Melrose, Mass.
Imperial—Furnaces. The Payne Co., La

Puente, Calif.
Imperial—Sheet Metal Awnings.

Control Products, Inc., Coopersville, Mich.

Imperial Speedmaster—Gas Water Heat-ers. Handley-Brown Co., Jackson, Mich

Incino-Flame-Gas Burners. Bryant Industrial Products Corp., Cleveland, O Incinor-Incinerators. Bowser, Inc., In-

Incinor—Incinerators. Bowser, Inc., Incineration Div., Cairo, Ill.
Inco—Paints, Sound Deadener. Inter-Coastal Paint Co., East St. Louis, Ill.
Inco—Ventilators. Iona Ventilator Co., Inc., Philadelphia, Pa.
Inconel—Alloy Plates, Sheets, Tubing, Electrodes. International Nickel Co., Inc., New York, N. Y.
Indoor-Outdoor—Thermostats. White-Rodgers Co., St. Louis, Mo.
Industrial Air—Furnaces, Heaters. Inland Heater Corp., St. Paul, Minn.
Industrial Air—Fars, Propeller Fan Blades, Louvers & Ventilators. Harvey Industrial Air—Fans, Propeller Fan Blades, Louvers & Ventilators. Harvey

P. Bertram Co., Cincinnati, Ohio.
Ingalls—Furnace Brushes. Worcester
Brush & Scraper Co., Div. Mason
Worcester Brush Co., Worcester, Mass.
Insa-Late—Insulating Cement. Sauereisen Cements Co., Pittsburgh, Pa.

Instant-Glo-Combustion Chambers, Boston Machine Works Co., Lynn, Mass. Instant Vane Rail—Vane Rails. Cain Mfg. Inc., Birmingham, Ala.

Mrg. Inc., Birmingnam, Ala.
Inst-O-Verse—Electric Motors. Franklin
Electric Co., Inc., Bluffton, Ind.
Insulsag—Insulation and Insulating Cement. Quigley Co., Inc., New York,

N. Y.
Insulbrix—Refractories, Quigley Co.,
Inc., New York, N. Y.
Insulfil—Insulation. Refractory & Insulation Corp., New York, N. Y.
Insulkote—Waterproofing. Johns-Manwille, New York, N. Y.
Insul-Pin—Insulation Fastenings, Welders. Graham Mfg. Corp., Needham
Hts. Mass

Hts., Mass. Insul Tex-Building Insulation. Insul-

Wool Insulation Co., Council Bluffs, Insul-Wool—Building Insulation. Insul-Wool Insulation Co., Council Bluffs,

Integral Twin Rail-Vibration Isolating

Bases and Pads. Korfund Co., Long Island City, N.Y. Interlox-Hose and Fittings. Internation-

al Metal Hose Co., Bellevue, O. Intermatic—Time Switches, Electric Motors. International Register Co., Chicago, Ill.

International-Oil Tank Gauge. Applied Mechanics Co., Boston, Mass.

Intru-lok-Copper Tube Fittings. Parker Fittings & Hose Div., Parker-Hannifin Corp., Cleveland, O. Inversaire—Furnaces. Burnham Corp.,

Warm Air & Cooling Div., Belle Vernon. Pa.

In Wall-Unitary Air Conditioners. I. W. Air Conditioning Corp., Bronx, New York.

Ironhide-Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Ironweld—Cast Iron Welding Flux. Sight Feed Generator Co., West Alexandria,

Irpo—Rust-Proofing. Wolfe-Kote Co., Sheboygan, Wis. Island City—Registers. Rock Island Reg-ister Co., Rock Island, Ill. Isomode—Vibration Pads. MB Mfg. Co., Div. of Textron Inc., New Haven.

Isotron—Refrigerants. Pennsalt Chemi-cals Corp., Philadelphia, Pa.

J

JE-Furnace Pipe and Fittings, Solenoid Valves. Jackes-Evans Mfg. Co., St. Louis, Mo.

-Electric Motors, Jack & Heintz, I & H.

J. & H.—Electric Motors, Jack & Heintz, Inc. Cleveland, Ohio J-M—Insulation, Roofing, Curtain Wall Panels. Johns-Manville, New York. JPS—Pillow Block Bearings. Link-Belt Co., Chicago, Ill. Jackson & Church-Furnaces and Heat-

ers. York-Shipley, Inc., York, Pa.
Jal-Con-Weld—Steel Tubing. Jones & Jarcon-Weid—Steel Tubing, Jones & Laughlin Steel Corp., Pittsburgh, Pa. Jalloy—Alloy Plates. Jones & Laughlin Steel Corp., Pittsburgh, Pa. Jalten—Steel Plates. Jones & Laughlin

Steel Corp., Pittsburgh, Pa.

JalZinc—Metal Sheets. Jones & Laughlin

Jaizinc—Metal Sheets, Jones & Laughin Steel Corp., Pittsburgh, Pa. Janette—Blower Wheels and Housings. Jan-Air, Inc., Richmond, Ill. Jet-8—Gas Burners. Banner Burner Co.,

Youngstown, O.

Jet Flux.—Flux. All-State Welding Alloys Co., Inc., White Plains, N. Y.

Jetglas—Gas Unit Heaters. Day & Night

Jetglas—Gas Unit Heaters. Day & Night Mfg. Co., La Puente, Calif. Jethard—Welding Rod. Lincoln Electric Co., Cleveland, O. Jet-Heat—Gas Conversion Burners. Barber Mfg. Co., Cleveland, O. Jet-line—Combustion Chambers. Grant

Wilson, Inc., Chicago, Ill.
Jetolator—Roof Ventilators, Vent Caps.
Accurate Sheet Metal & Mfg. Works, Chicago, Ill.

Jettronaire—Burners, Ducts and Duct Fittings, Furnaces, Furnace Pipe and Fittings. Steel City Furnace Corp., Springdale, Pa.
t Tubing—Flexible Ducts. Jet-Heet,
Inc., Englewood, N. J.

Jetweld-Welding Rod. Lincoln Electric Co., Cleveland, O.

Jiffy—Roof Flashing. Simplex Mfg. Co.,

Fond du Lac, Wis.

Jiffy—Damper Clips and Tips, Duct
Damper Regulators. Duro-Dyne Corp.,

Farmingdale, N. Y. Farmingdale, N. Y.

Jiffy-Lift—Elevating Tailgate for Trucks.

Mid West Body & Mfg. Co., Paris, Ill.

Jointite—Insulation. Mundet Cork Corp.,

North Bergen, N. J.

Jumbo—Oil Burners. Breeze Corps.,

Inc., Newark, N. J.

June-Aire—Furnaces. American Found
ry & Furnace Co., Bloomington, Ill.

Junior—Flexible Duct Connections.

Duce Deep Corp. Fermingdale, N. Y.

Junior—Flexible Duct Connections.
Duro-Dyne Corp., Farmingdale, N. Y.
Junior—Roof Ventilators. Octago II.
Jupiter—Water Heaters. Day & Night
Mfg. Co., La Puente, Calif.
JusRite—Ducts, Dampers, Duct Connectors, Furnace Pipe and Fittings. Corbman Bros., Inc., Philadelphia, Pa.
JusRite L-Bo—Furnace Pipe and Fittings.
Corbman Bros., Inc., Philadelphia, Pa.

KD-2-Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

K&M-Insulation. Keasbey & Mattison Co., Ambler, Pa.

-Refrigerant Dehydrator, Kenmore Machine Products, Inc., Lyons, N. Y KO-Hoists. Stephens-Adamson

Co., Aurora, Ill. KRW-Press Brake. K. R. Wilson, Inc.,

Arcade, N. Y.

KX-99—Refractories. A. P. Green Fire
Brick Co., Mexico, Mo.

Kamlar-Plastic Welding Guns. Laramy Products Co., Hingham, Mass.

Kant Krush—Roof Strainers, Haven-Busch Co., Grandville, Mich. Kathabar—Dehumidifiers. Janitrol Heat-

ing and Air Conditioning Div., Surface Combustion Corp., Columbus, O. Kaukit—Caulking Compound. L. Sonnborn Sons, Inc., New York, N. Y. Kay-Vee—Aluminum Awnings, Kool-

vent Metal Awnings Corp. of America, Pittsburgh, Pa. Keldur-Vibration Isolators. Quimby &

Co., Chester, N. J. Ken-Solvents, Baffles, Fuel Oil Tank

Gauges. Robert Barclay, Inc., Chicago. Kernerator—Incinerators. Kerner Incinerator Div., Morse-Boulger, Inc., New York, N. Y.

Key-Hak—Metal Cutting Saw Attach-ment for Electric Drill. Producers &

Distributors, Inc., Allentown, Pa. Keystone—Flashings. Revere Copper and Brass, Inc., New York, N. Y. Keystone—Water Heaters. Bastian-Mor-

 Keystone—Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
 King Gauge—Tank Gauge. Oil Equipment Mig. Co., New Haven, Conn.
 King-Kool—Fans. Belco Industries, Inc., St. Louis, Mo.

King Pin-Heat Recoverets. Therm Gas Generator Co., Inc., Seattle, Wash. Kirksite-Zinc Sheets, Morris P. Kirk &

Son, Inc., Los Angeles, Calif. Kirkson—Flux, Solder. Morris P. Kirk & Son, Los Angeles, Calif.

Kitchen-Aire-Ventilating Hoods, Kitch-en Fans. Stewart Industries, Inc., Indianapolis, Ind.

Kitch-N-Ventor-Fans. Universal Blower Co., Birmingham, Mich.

Kleen-Aire-Furnaces. Steel City Furnace Co., Springdale, Pa.

Kleenflo-Filters. Air-Maze Corp. Cleveland, Ohio.

Kleen-Heet-Oil Burners. Automatic Burner Corp., Chicago, Ill.

Kleenit-Oil Burner Tank Solvent, Soot Remover. Red Wing Oil Burner Co., Inc., Medford, Mass.

Kleenmaster-Furnace Vacuum Cleaners. Molloy Sales Corp., Chicago, Ill.

Klenk's—Snips. W. H. Compton Shear
Co., Newark, N. J.

Kling Felt-Gaskets, Products Research

Co., Los Angeles, Calif.

Klixon—Controls. Metals & Controls Corp., Spencer Div., Attleboro, Mass.; also Metals & Controls Corp., Ver-sailles Products Div., Versailles, Ky.

Klondike-Welders. Ralph Fern, Scranton, Pa.

K-Louver-Sun Reflecting Louvers. Kawneer Co., Niles, Mich.

K-Matic-Pneumatic Drills. Gardner-Denver Co., Quincy, Ill.

Kno-Draft—High Velocity Air Dif-fusers; Heating, Ventilating and Air Conditioning Grilles and Registers; and Sound and Volume Control Mixing Units. Connor Engineering Corp., Danbury, Conn.

Kolbkast-Combustion Chambers. Kolb Refractories Co., Philadelphia, Pa.

Kolbkast-Combustion Chambers. A. R. Webber Co., Inc., New Haven, Conn. Kolstoker-Stokers. Anchor Stove & Range Co., New Albany, Ind.

Kompo-Kork-Vibration Isolating Pads. Korfund Co., Inc., Long Island City,

Kooler-Aire-Air Conditioning Units, Condensers. United States Air Con-O. ditioning Corp., Delaware, Kooler-Kote-Sheet Metal Paint.

Koolite—Torches. National Welding Equipment Co., San Francisco, Calif. Kool Kastle—Air Conditioning Units, Condensing Units, Kool Engineering Corp., Chicago, Ill.

Koolmaster—Fans. Air Equipment Co., Inc., Chicago, Ill. Kool-Pak—Air Conditioning Units. Mid-west Automatic Control Co., Des Moines, Iowa.

Moines, 160w2.

Koolshade—Sun Reflecting Screens and
Louvers. Reflectal Corp., Subsidiary
Borg-Warner Corp., Chicago, Ill.

Kool-Temp—Air Conditioning Units.

Midwest Automatic Control Co., Des

Moines, Iowa. Kopro-C.P.-15—Roof Cement.

Carey Mfg. Co., Cincinnati, Ohio. Korker-Expansion Anchors. U. S. Expansion Bolt Co., York, Pa.

Koroseal PVC—Plastic Sheets and Tubing, B. F. Goodrich Industrial Products Co., Kososeal Division, Marietta,

0

Korth-Oil Fired Water Heaters. Eckhart Mfg. Co., Inc., Union, N. J.

Kover-Lum—Colored Aluminum Siding.
U. S. Aluminum Siding Corp., Franklin Park, Ill.

Krack-Coils, Condensers, Unitary Air Conditioners. Refrigeration Appliances, Inc., Chicago, Ill.

Kres-Kno Perco-Flash—Water Heaters. Kresno-Stamm Co., New York, N. Y. Krome-Kote—Metal Cleaners. Wolfe-

Kote Co., Sheboygan, Wis. Kruzite-Refractories. A. P. Green Fire Brick Co., Mexico, Mo. Kurlicue-Aluminum Nails. Independent

Nail & Packing Co., Bridgewater, Kwik-Flux. M. W. Dunton Co., Provi-

dence, R. I. Kwik-Bond-Adhesives. Columbia Ce-

ment Co., Inc., Brooklyn, N. Y.
Kwik-Fit—Prefabricated Plenum Chambers. Maurlee Co., Inc., Woodbury Heights, N. J.

Kwikflo Flux-Soldering Flux London Chemical Co., Melrose Park, Ill.

Kwikhanger-Duct Hanger. Lane Sheet Metal, Minot, N. D. Kettles. Little-

Kwik-Melter—Roofers' Kettles. Litt ford Bros., Inc., Cincinnati, Ohio. Kwik-Tite—Copper Tube Fittings. I perial Brass Mfg. Co., Chicago, Ill. Kwik-Way-Damper Regulators. Hart

& Cooley Mfg. Co., Holland, Mich.

LA-Motors. Louis Allis Co., Milwau-

kee, Wis. L-M-Tubing. Lewin-Mathes Co., St. Louis, Mo. L & N-Thermometers. Leeds & North-

rup Co., Philadelphia, Pa. L-U-Gravity Roof Ventilators. Hirsch-man-Pohle Co., Inc., LeRoy, N. Y.

La-Co-Soldering Flux. Lake Chemical Co., Chicago, Ill. Lac-O-Nu-Metal Cleaner. NuSteel Co.,

Chicago, Ill. Glidden Company, Lacq-Lacquers. Cleveland, Ohio.

Lactile-Roofing Felt. Philip Carey Mfg. Co., Cincinnati, Ohio. Lagz—Insulation Adhesive. West Chester

Chemical Co., West Chester, Pa.

Lancol—Stainless Steel Soldering Flux. F. H. Langsenkamp Co., Indianapolis,

Lap-Drain-Aluminum Roofing. Nichols Wire & Aluminum Co., Davenport,

Lascolite-Plastic Panels. Lynch Asbestos Co., Los Angeles, Calif.

Lascopipe—Plastic Tubing, Lynch Asbestos Co., Los Angeles, Calif.

Lastile-Roofing Felt. Philip Carey Mfg. Lockland, Cincinnati, Ohio. Laund-R-Vent-Laundry Dryer Vent System. Cole-Sewell Engineering Co., St. Paul, Minn.

Lawson-Unitary Air Conditioners. Speedy Mfg. & Sales Co., Amarillo,

Leader—Water Heaters. Day & Night Mfg. Co., La Puente, Calif. Lead-Seal—Roofing Nails. The Deniston

Co., Chicago, Ill.

Leadtex—Lead-Coated Sheets. Revere
Copper & Brass Inc., New York, N. Y.
Leastoker—Stokers. H. Leslie Leas Co.,

Monona, Iowa Lectrodryer-Dehumidifier. Pittsburgh Lectrodryer Co., Pittsburgh, Pa. Lectrofilter—Electronic Air Cleaners. Coolerator Div., McGraw-Edison Co.,

Albion, Mich. Lectro Spot-Welders, Miller Electric

Mfg. Co., Inc., Appleton, Wis. Ledlok—Toggle Bolts. U. S. Expansion Bolt Co., York, Pa. Leigh-Shutters, Awnings, Canopies, Fans, Ventilators, Ventilating Hoods for Kitchens, Vent Systems for Laundry Dryers. Air Control Prod-

ucts, Inc., Coopersville, Mich. Lenox-Saw Blades. American Saw & Mfg. Co., Inc., Springfield, Mass. Leonard—Water Heaters and Window

Air Conditioning Units. Kelvinator Div., American Motors Corp., Detroit, Mich.

Lesto—Electric Shears, Electric Buffers, Grinders, Polishers and Sanders. Vic-tor J. Krieg, Inc., New York, N. Y. Levelometer—Oil Tank Gauges. Liquidometer Corp., Long Island City, N. Y.

Leytool-Hack Saw. Halbee Products Co., Parma, Mich. Liberty—Furnaces. Dowagiac Steel Fur-

nace Co., Dowagiac, Mich.

Liberty—Caulking Compound, Roof Cement, Paint, Waterproofing. Carter

ment, Paint, Waterproofin Paint Co., Inc., Liberty, Ind. Liberty-Ventilators. Ventilator Penn Co. Inc., Philadelphia, Pa.

Lifeguard-Furnaces. Day & Night Mfg. Co., La Puente, Calif.

Lifeline "A"-Motors. Westinghouse Electric Corp., Pittsburgh, Pa. Lifelong-Filters. George Evans Corp.,

Moline, Ill. Lifetime-Air Filters. Permatron Corp.,

Chicago, Ill. Lifetime—Roofing, Gutters and Gutter Accessories. Reynolds Metal Co.,

Accessories. Richmond, Va. Lift Gate-Elevating Tail Gate

Trucks. Anthony Co., Streator, Ill. Lift King-Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.

Lightening Hole-Punches. Merchandising and Manufacturing Associates, Inc., Lancaster, Pa. Lincoln-Air Conditioning Units. Fors-

ton Co., Houston, Tex. Lincolnweld-Arc Welders. The Lincoln Electric Co., Cleveland, Ohio.

Lincwelder-Arc Welders, Lincoln Elec-

tric Co., Cleveland, Ohio. Line-Air—Air Diffusers, Registers. Universal Diffuser Corp., Tuckahoe, N. Y. Line-O-Flo-Diffusers. Barber-Colman Co., Rockford, Ill.

Liquid Red—Arc Welders. General Dy-namics Corp., Liquid Carbonic Div., Chicago, Ill.

Liquidweld-Torches. General Dynamics Corp., Liquid Carbonic Div., Chicago,

Liquid Wrench-Rust Preventive Chemicals. Radiator Specialty Co., Charlotte, N.C.

Liquiflux-Flux. Sight Feed Generator Co., West Alexandria, O.

Lite-Cast-Combustion Chambers. Monogram Products Co., Philadelphia, Pa. Lite Master-Skylights. Vent-O-Lite Co., Chicago, Ill.

Lite-N-Air-Roof Ventilators. wout Fabricators, Inc., Kokomo, Ind.
Lithoform—Coating Chemical for Galvanized, Zinc or Cadmium surfaces. American Chemical Paint Co., Ambler, Pa.

Little Blacksmith—Punches and Slitting Machines. J. F. Kidder Mfg. Co., Inc., Burlington, Vt.

Little Gem-Gas Burner. Columbia Burner Co., Toledo, Ohio.

Liv-Air-Furnaces. Livingston, Inc., Marshall, Mich.

Air-Furnaces, Unitary Conditioners. Mayflower Air Conditioners, Inc., St. Paul, Minn.

Lloyd's—Soldering Flux. Johnson Mfg. Co., Inc., Mount Vernon, Iowa. Load King—Hand and Electric Hoists. Yale & Towne Mfg. Co., Philadelphia, Pa

Load-Lift—Warehouse Trucks. American Pulley Co., Philadelphia, Pa.
Lo-Blast—Gas Burners. Mid Continent Metal Products Co., Chicago, Ill.
Lo-Boy—Stokers. Whiting Corp., Har-

vey, Ill.

Lockaire-Building Insulation. Plastergon Wall Board Co., Buffalo, N. Y. Lock-Joint-Furnace Pipe and Fittings,

Duct and Duct Accessories. Inland Steel Products Co., Milwaukee, Wis. Lock-Seam—Blow Pipe Fittings. cago Metal Mfg. Co., Chicago, Ill. Chi-

Lodestar-Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

Lo-Hed—Electric Hoists. American Engineering Co., Philadlephia, Pa.
Lo-K—Building and Duct Insulation.
Lockport Mills, Inc., Lockport, N. Y.
Loktite—Toggle Bolts. U. S. Expansion
Bolt Co., York, Pa.

one Star—Refractories.
Fire Brick Co., Mexico, Mo.
Heaters. Hotstream Lone Star-Refractories. A. P. Green

Longhorn-Water Heaters. Heater Co., Cleveland, Ohio

Loop-the-Loop-Snow Guards. Danzer Metal Works Co., Hagerstown, Md. Lo-Pilot-Water Heaters. Allen Mfg. Co., Inc., Nashville, Tenn.

Lo-Set-Stokers. Canton Stoker Corp., Canton, Ohio.

Ventilators. Louvent-Roof Octagon Ventilator Co., Chicago, Ill. Louverail-Louver Rails. Cain Mfg. Inc.,

Birmingham, Ala.

Lovejoy-Ideal—V-belts. Lovejoy Flexi-ble Coupling Co., Chicago, Ill. Lo-Vent—Roof Ventilators. American Warming & Ventilating Co., Toledo, O.

American Foundry & Furnace Co., Lo-Vent-Gravity Bloomington, Ill.

Low Contour DynaFan-Roof Ventilators. Penn Ventilator Co., Inc., Philadelphia, Pa.

Lowline-Roof Ventilators. Swartwout

Fabricators, Inc., Kokomo, Ind. Lown-Slip Roll Forming Machines. San Angelo Foundry & Machinery Co., San

Angelo, Tex.

Low Type—Roof Ventilators. Burt Mfg.

Co., Akron, Ohio

Lo-X-It Trivent-Roof Ventilators. Octagon Ventilator Co., Chicago, Ill. Luco-Acid Brushes, Flux, Solder. Thos.

F. Lukens Metal Co., Philadelphia, Lumaskin-Building Insulation. Ludlow Papers, Inc., Needham Heights, Mass. Lume-Tex—Aluminum Paint. Truscon Laboratories, Detroit, Mich.

Lumishade—Awnings, Canopies, Sun Reflecting Louvers. Mapes Industries, Inc., Lincoln, Nebr.

Lustralumin-Aluminum Paint.

Ridge Talc Co., Inc., Henry, Va.
Luxaire—Blower-Filter, Units Burners,
Furnaces, Furnace Pipe and Fittings,
Incinerators. The C. A. Olsen Mfg.
Co., Elyria, Ohio.

Lyfanite—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich. Lyonore—Sheets. Lyon-Conklin & Co., Inc., Baltimore, Md.

ston—Soldering Pa.
Inc., Philadelphia, Pa.
Soldering Flux, Lyston-Soldering Flux, Farrelloy Co.,

Lytestone—Soldering Flux, Tinning Baths. Farrelloy Co., Inc., Philadelphia, Tinning

MAC-Air Conditioning Units for Military Applications. Airflow Co., Wheaton, Md.

M-Cals-Nameplates. North Shore Nameplate, Inc., Bayside, L.I., N. Y. E.-Motors. Marathon Electric Mfg.

Corp., Wausau, Wis. MG-Panels-Curtain Wall Panels, H. H.

Robertson Co., Pittsburgh, Pa.

MGO Combination—Gas-Oil Burners.

Mettler Co., Inc., The, Los Angeles,

M-H—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. M&M—Valves. McDonnell & Miller,

Inc., Chicago, Ill.

M-Panels—Curtain Wall Panels. H. H.
Robertson Co., Pittsburgh, Pa.

M-R—Wire Glass. H. H. Robertson Co.,

Pittsburgh, Pa.

M & T-Arc Welders. Metal & Thermit

Corp., Rahway, N. J.

Corp., Rahway, N. J.
M/W-Filters. American Air Filter Co.,
Inc., Louisville, Ky.
MW-50—Insulating Cement. Philip Carey Mfg. Co., Lockland, Cincinnati, O.
MW-One—Insulating Cement. Philip
Carey Mfg. Co., Lockland, Cincinnati,

Macheta—Fans, Fan Blades, Ventilators. Aerovent Fan Co., Piqua, Ohio. Magic Dial—Control Systems. Midwest Automatic Control Co., Des Moines,

Magic-Vulc—Waterproofing. Magic Chemical Co., Brockton, Mass. Magna-Bar—Sludge and Corrosion Con-

troller for Fuel Oil Tanks. Johns Mfg. Co., Middlesex, N. J.

Magnehelic—Draft Indicating Gages.

W. Dwyer Mfg. Co., Michigan City, Ind.

Magnetic—Water Conditioners. Evis Mfg. Co., San Francisco, Calif. Magnetool—Magnetic Floor Sweepers, Magnetic Lifters. Multifinish Mfg. Co., Detroit, Mich.

Mainliner—Fan Blades. Russell Coil Co., Santa Fe Springs, Calif.

Maintz—Caulking Compounds, Paints. West Chester Chemical Co., West West

Chester, Pa.
Majestic—Through Wall Flashings. C. G. Hussey & Co., Pittsburgh, Pa.
Manganend—Welding Rod. Arcos Corp., Philadelphia, Pa.

Marco-Kitchen Exhaust Fans and Ventilating Hoods. Marvin Electric Mfg. Co., Los Angeles, Calif.

Marcolite—Skylights and Roof Ventila-tors Marco Co., East Orange, N. J. Marfaid—Solenoid Valve, Hays Mfg. Co., Erie, Pa.

Marietta-Enamels and Lacquers, American-Marietta Co., Chicago, Ill. Mark Time-Time Switches. M. H.

Rhodes, Inc., Hartford, Conn. Marsalis Chubby—Floor Furnace. American Metal Products Co., Forth Worth, Texas.

Martin-Furnaces, Incinerators. Stove and Range Co., Sheffield, Ala. Marvair—Duct Blowers, Cooling Coils,

Furnaces, Unitary Air Conditioners, Muncie Gear Works, Cordele, Ga. Mary-Mac—Storage Water Heaters. McDaniel Mfg. Co., Inc., Dallas, Texas. Masco—Duct, Duct Accessories and Furnace Pipe and Fittings. Creamer Industries, Inc., Maxwell Steel Div., Fort Worth, Tex.

Master-Circles, Hangers and Fittings. Royal-Apex Mfg. Co., Inc., Brooklyn,

Master-Evaporative Coolers. Essick Mfg. Co., Los Angeles, Calif.
Master—Dust Collectors. Kindt-Collins

Co., Cleveland, O.
Master—Furnaces. Day & Night Mfg. Co., La Puente, Calif.

Master Blowertrol-Thermostatic Hvdraulic Control. White Mfg. Co., St. Paul, Minn.

Master Poly-Trol-Shut Off Valves. Handley-Brown Co., Jackson, Mich. Master Vac—Furnace Vacuum Cleaners.

Premier Co., St. Paul, Minn. Mastic Board-Insulation. Keystone Asphalt Products Co., Chicago, Ill.

Maxaw—Electric Saws. Cummins Portable Tools, Div. of John Oster Mfg. Co., Milwaukee, Wis.

McKee-Gas Burners. Eclipse Fuel Engineering Co., Rockford, Ill.

Mecco-Doors and Shutters, Skylights, Ventilators. Moeschel-Edwards Co., Inc., Cincinnati, Ohio.

Meco—Duct Damper Regulators. Me-chanical Contractors Supply Co. Inc.,

New York, N. Y.

Meco-Flux, Torches. Modern Engineering Co., St. Louis, Mo.

Meco Jiffy-Soldering Torches. Modern Engineering Co., St. Louis, Mo. Meletron-Controls. Barksdale Valves, Los Angeles, Calif.

Metalace-Crimping Metalace—Crimping Machine, Metal Lace and Stitch, Inc., New York, N. Y. Metal-Aire—Wall and Ceiling Diffusers, Heating and Air Conditioning Grilles. Metal Industries, Inc., Clearwater, Fla.

Metalbestos—Prefabricated Chimneys, Chimney Caps, Flashings, Pipe and Fittings. William Wallace Co., Belmont, Calif.

Metal Bond—Waterproofing. Wilbur & Williams Co., Norwood, Mass. Metaleaf-Aluminum Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Metalene-Cleaning Compound. Lester Laboratories, Inc., Atlanta, Ga.

Metal-Fab—Flexible Duct Connections. Duro-Dyne Corp., Farmingdale, N. Y. Metallite—Paints. Glidden Co., Cleve-

land, Ohio.

Metal Master-Snips and Shears. J. Wiss & Sons Co., Newark, N. J.

Metalprep-Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich. Metalset-Caulking Compounds. Smooth-

on Míg. Co., Jersey City, N. J. Metal Zipper—Arc Welders. Mid-States Welder Míg. Co., Chicago, Ill. Meteor—Hoists. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Tonawanda, N. Y.

Metlcap—Chimney Caps and Tops. Hart & Cooley Mfg. Co., Holland, Mich. Met-L-Flex-Vibration Isolating Bases and Pads. Robinson Technical Prod-Reses ucts, Inc., Teterboro, N. J. MetlMastr—Sheet Metal Working Ma-

chines. Lennox Tool & Machine Build-

ers, Lima, O.

Metlvent—Gas Vent. Hart & Cooley
Mfg. Co., Holland, Mich.

MetroDeck—Steel Roofing. Goldsmith Metal Lath Co., Cincinnati, Ohio.

Metropac-Oil Burners. Waterair Co., Medford, Mass. Metropolitan-Baseboard Diffusers, Reg-

isters. Krauser-Boyd, Inc., North Tonawanda, N. Y.

Mex-Ko.-Refractories. A. P. Green Fire Brick Co., Mexico, Mo. Meyco-Furnaces. Meyer Furnace Co., Peoria, III.

Miam-Carey-Metal Access Doors, Fans. Philip Carey Mfg. Co., Lockland, Cincinnati, O.

Miami-Furnaces. Gross Furnace Mfg. Co., Inc., Salem, Va.
Mica-kote-Roofing Felt. Philip Carey

Mfg. Co., Lockland, Cincinnati, Ohio. Micro-Dri-Refrigerant. Dehydrators. Wabash Corp., Chicago, Ill.

Microflex-Vibration Isolating Bases and Pads. Johns-Manville Fiber Glass Inc., Toledo, O.

Micro-Heater-Heaters. Hastings Air Control, Inc., Omaha, Nebr. Micro-Klean-Fuel Oil Filters.

Engineering Corp., Meriden, Conn. Microlite-Sound Absorbers, Duct and Furnace Insulation. Johns-Manville Fiber Glass Inc., Toledo, O.

Microlock-Bearings. Shafer Bearing Div., Chain Belt Co., Downers Grove, III

Micromet-Rust Preventive Chemicals, Water Conditioners. Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Pittsburgh, Pa.

Micro Motor-Motors. Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso, Mich.

MicroRold-Stainless Sheets. Washington Steel Corp., Washington, Pa.

Micro-Screen—Fuel Oil Filters. Cuno Engineering Corp., Meriden, Conn. Micro-Scriber-Scriber. Greist Mfg. Co., New Haven, Conn.

Microtex-Insulation. Johns-Manville Fiber Glass Inc., Toledo, O. Microtherm-Thermostats. Barber-Col-

man Co., Rockford, Ill. Micro-Weld-Welders. Micro Products Co., Chicago, Ill.

Midget-Humidifier Valves. Maid-O'-Mist, Inc., Chicago, Ill. Midget King-Hoist. Yale & Towne Mig. Co., Philadelphia, Pa.

Midg-O-Matic-Solenoid Valve. Hays Mfg. Co., Erie, Pa.

Midget-Furnaces. Dowagiac Mighty Steel Furnace Co., Dowagiac, Mich. Mighty Midget-Drills. Stanley Elec. Tool Div., The Stanley Works, New Britain, Conn.

Mighty Mite-Stud Guns. Remington Arms Co., Inc., Bridgeport, Conn.

Milburn-Brazing Torches. Black Mfg. Co., Baltimore, Md.

Milcor-Dampers, Roof Decking, Draft Diverters, Access Doors, Duct Accessories, Metal Duct, Roof Flashings, Small Pipe Heating Systems, Gutters Small Pipe Heating Systems, Outters and Gutter Accessories, Louvers, Mouldings, Pipe and Fittings, Pre-fabricated Curtain Wall Panels, Con-ductor Pipe Hooks, Roofing, Roof Trim, Inland Steel Products Co., Milwankee. Wis.

Milford—Hack Saw Blades. Henry G. Thompson & Sons Co., New Haven, Conn.

Milwaukee-Presses and Dies. Doelger & Kirsten, Inc., Milwaukee, Wis.

Milwaukee Thermoflo-Furnaces. Metzger Machine & Engineering Thermosto Div., Milwaukee, Wis.

Mindicator-Thermometers. Dickson Co., Chicago, III.

Minicorder-Recorders, Dickson Co., Chicago, Ill.

Minit Kote-Metal Cleaner. Klem Chemicals, Inc., Detroit, Mich.

Mipatan-Power Hammers. Port City Machine & Tool Co., Muskegon, Mich. Miracle Breeze-Fans, Air Conditioning Units, Evaporative Cooler Mats, Evaporative Cooler Units. Arizona Maintenance Co., Tucson, Ariz.

Mirodized-Perforated Metal. Colonial Alloys Co., Philadelphia, Pa. Mirror-Vent Caps, Draft Diverters, Furnace Pipe and Fittings. Mirror Patented

Stove Pipe Co., Hartford, Conn. listender-Mist Separator for Blow Pipes. Dustender Co., Ann Arbor, Mistender-

Mixend-Welding Rod. Arcos Corp., Div. of Hughes and Keenan Co., Delaware, O.

Mizzou-Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

Mobilift-Warehouse Trucks. Lamson Mobilift Corp., Portland, Ore. ModernAire-Evaporative odernAire—Evaporative Air Conditioning Units. National Equipment

Co., Inc., Denison, Texas. Modu-aire-Air Conditioning Units. United States Air Conditioning Corp.,

Delaware, O. Moduflow-Control Systems. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Modulite-Skylights. Chemold Santa Monica, Calif.

Modutrol-Duct Damper Motors. Minneapolis-Honeywell Regulator Co. Minneapolis, Minn.

Modu-Wave-Welders. Sciaky Inc., Chicago, Ill.

Mogul-Rust Preventive Chemicals, Water Conditioning Compounds, Soot Re-movers, Tank Solvents. North American Mogul Products Co., Cleveland, O.

Mogul Kwik-Kleen-Cleaning Compound. North American Mogul Products Co., Cleveland, O.

Mohawk-Furnaces. Dowagiac Steel Furnace Co., Dowagiac, Mich.

Moistop-Vapor Barriers. Amer Sisalkraft Corp., Attleboro, Mass. American Moisture-Lite-Humidity Recorders. Newmack Corp., Elyria, O.

Moisture Magnet-Dehumidifiers. Rem-

ington Air Cond. Div., Remington Corp., Auburn, N. Y. Monar-Welding Rod. Arcos Corp., Philadelphia, Pa.

Moncrief-Blower-Filter Units, Furnaces, Incinerators, Unit Heaters, Air Conditioning Units. Henry Furnace Co., Medina, Ohio,

Monel-Sheets, Plate and Tubing, Electrodes. International Nickel Co., New

York, N. Y. Monend-Welding Rod. Arcos Corp., Philadelphia, Pa. Monite-Humidifier Plates. Cleveland

Humidifier Co., Cleveland, O. Monmouth-Humidifiers. Cleveland Humidifier Co., Cleveland, Ohio.

Mono Block—Furnace Insulation. Baldwin-Ehret-Hill, Inc., Trenton, N. J.

Monolinc-Refractories. Quigley Inc., New York, N. Y.

Mono Motor-Electric Motors. Redmond Inc., Subsidiary of Controls Co. of America, Owosso, Mich.

Monoport—Gas Burners. Modern Con-trols Corp., Centerline, Mich. Monovent-Roof Ventilators. Burt Mfg.

Co., Akron, Ohio. Mor Air-Propeller Fan Blades. Maurey Mfg. Corp., Chicago, Ill.

Morflex—Flexible Couplings. Morse Chain Co., Ithaca, N. Y. Mor-Grip—Fan and Motor Pulleys, V-

Belts. Maurey Mfg. Corp., Chicago,

Morse Cyclone-Blow Pipe Collectors. Goergen-Mackwirth Co., Inc., Buffalo, NY

Mor-Sun—Oil Burners, Furnaces, Air Conditioning Units. Morrison Steel Products, Inc., Buffalo, N. Y. Mortex—Metal Protective Coatings. J.

W. Mortell Co., Kankakee, Ill. Com-Mortite—Caulking and Glazing Com-pounds. J. W. Mortell Co., Kankakee, Ill.

Motorized Draft-O-Stat-Controls. Hotstream Heater Co., Cleveland, Ohio. Motoroor-Kitchen Exhaust Fans. Broan Mfg. Co., Inc., Hartford, Wis.

Motorstoker-Stokers. Hershey Motorstokor, Manheim, Pa. Mototurb-Ventilators. Uno Ventilator

Co., Malden, Mass. M-Pel-Air-Fans, Blower Wheels, Fan Brookside Corp., McCords-Blades. ville, Ind.

Muckle-Vents-Roof Ventilators. Muckle Míg. Co., Owatonna, Minn. Multiblade—Welding Fume Exhausters. General Blower Co., Subsidiary of Ilg

Electric Ventilating Co., Morton Grove, Ill. Multiclone-Blow Pipe Collectors. West-

ern Precipitation Corp., Los Angeles, Multi-duty--Pulleys. Gates Rubber Co.,

Denver, Colo. Multi-Duty-Filters. American Air Filter Co., Inc., Louisville, Ky.

Multiguard-Electric Motors. Lincoln Electric Co., Cleveland, O.

Multi-Max—Punch Presses. Diamond Machine Tool Corp., Pico-Rivera, Calif.

Multi-Notcher-Notching Machine. Fallsington Mfg. Co., Fallsington, Pa. Multi-Pul-Hoists, Multiple Corp., Day-

ton, O. Multitherm—Air Conditioning Uni Clarage Fan Co., Kalamazoo, Mich.

Multi-Unit—Expansion Anchors, U. S. Expansion Bolt Co., York, Pa. Multivane—Blowers. Westinghouse Elec-

tric Corp., Sturtevant Div., Hyde Park, Boston, Mass.

Multi-Vent—Air Diffuser, Pyle-National Co., Multi-Vent Div., Chicago, Ill. Multi-Vent Troffer-Diffusers. Pyle-National Co., Multi-Vent Div., Chicago,

III Murex-Welding Rod. Metal & Thermit Corp., Rahway, N. J. Myka-Disk-Baffles. Insulation

fractories Co., Webster, N. Y.

NCG—Soldering and Welding Flux, Refrigerant Leak Detectors, Welding Rods. Chemetron Corp., Chicago, Ill. Hite-Fuel Oil Pumping Systems.

Robert Barclay, Inc., Chicago, Ill. Nairoil—Oil Burners. National Airoil Burner Co., Philadelphia, Pa. Nalco-Flux. National Lead Co., New York, N. Y.

NarroWall-Wall Furnaces. Holly-Gen-

eral Co., Pasadena, Calif.
Natco—Furnaces. National Thermatic
Corp., Houston, Tex.
National—Furnaces. MaGirl Foundry &

Furnace Co., Bloomington, Ill. Stain-National-Horizontal Furnaces. less & Steel Products Co., St. Paul,

National-Water Heaters. Mustee Heater Co., Cleveland, Ohio, National Champion-Furnaces and Fur-

nace Type Dryers. National Heater Co., Inc., St. Paul, Minn. Natur-Temp—Building Insulation. Barn-hardt Mfg. Co., Charlotte, N. C.

Naturzone—Building and Duct Insula-tion. Wilson & Co., Inc., Chicago, Ill. Nebelastic—Roof Cement, Nebel Mfg.

Co., Cleveland, Ohio. Nebel-Kore-Paint. Nebel Mfg. Co., Cleveland. Ohio.

Necon-Cleaning Compounds for Con-densers and Coils. Northeast Consultants, Inc., Framingham, Mass.

Nelco-Metal Letters. Metalcraft, Inc., Chicago, Ill. Nelson—Air Conditioning Units, board Diffusers, Furnaces, S Stokers.

Heating Assurance, Inc., Spokane, Wash Nelweld-Welders. Nelson Stud Weld-

ing Div., Gregory Industries, Inc., Lorain, Ohio, Neobon-Metal Protective Coatings.

Atlas Mineral Products Co., Mertztown, Pa.

Nepoxide—Metal Protective Coatings. Atlas Mineral Products Co., Mertz-town, Pa.

Nev-A-Rust-Paints. Glidden Co., Cleveland Ohio.

Never-Clog-Furnace Vacuum Cleaners.
Pullman Vacuum Cleaner Corp., Boston Mass.

Never-Stain-Aluminum Nails, Roof Flashings, Aluminum Wire, Ridge Roll, Roofing. Nichols Wire & Aluminum Co., Davenport, Iowa,

New Departure-Oil Burners. Breeze Corps., Inc., Newark, N. J.
Newport—Air Conditioning Units. War-

ren Webster & Co., Camden, N. J. Niagara-Water Heaters. Sands Mfg. Co., Cleveland, O.

Nib-Shear—Power Nibber-Shear. H.A. Mfg. Co., York, Pa. Nickelend—Welding Rod. Arcos Corp.,

Philadelphia, Pa.

Nickeloid-Sheets. American Nickeloid Co., Peru, Ill.

Nickend-Welding Rod. Arcos Corp., Philadelphia, Pa.

Nicuar-Welding Rod. Arcos Corp., Philadelphia, Pa.

Nicuend-Welding Rod. Arcos Corp., Philadelphia, Pa. Nifer-Metal Sheets. Metals & Controls,

Div. of Texas Instruments Inc., Attleboro, Mass. Nite Air-Night Air Cooling Fans. Lau

Blower Co., Dayton, Ohio. Nitectic--Welding Rod. Eutectic Welding Alloys Corp., Flushing, N. Y.

oah's Pitch-Waterproofing. Philip Carey Mfg Co., Lockland, Cincinnati, Noah's

No-Bounce-Mallets. Tahlen Hammer Co., Seattle, Wash. NoDrip—Rust Preventive Chemicals, Metal Protective Coatings, Insulation.

J. W. Mortell Co., Kankakee, Ill.
No-Dust—Grinders. Hammond Machinery Builders, Inc., Kalamazoo, Mich.
Nokorode—Flux. M. W. Dunton Co.,
Providence, R. I.

Non-Clogging-Spray Nozzles. Link Belt

Non-Clogging—Spray Nozzies, Link Bett Co., Chicago, Ill. Non-Con-Dux—Cement, Paper, Paste. Grant Wilson, Inc., Chicago, Ill. No-Ox-Id—Rust Preventive Chemicals. Dearborn Chemical Co., Chicago, Ill. Norblo-Blowers. Northern Blower Co.,

Cleveland, Ohio, Norco-High Pressure Oil Burners. North Coast Mfg. Corp., Portland, Ore.

Norco Catalina-Furnaces. North Coast Mfg. Corp., Portland, Ore.

Northern Aire—Air Conditioning Units. Great Northern Mfg. Corp., Chicago,

Norwalker-Duct and Duct Fittings, Fur-Norwalk Air naces. Corp., South Norwalk, Conn.

Norwesco-Ducts, Duct Accessories, Flashings, Gutters, Conductor, Fur-nace Pipe and Fittings, Ridge Rolls, Roof Trim. Northwest Metal Products, Inc., Seattle, Wash. Nor'wester-Blowers. Grand

Die & Tool Co., Grand Rapids, Mich. No-Spat-Welding Flux. Midland Paint & Varnish Co., Cleveland, Ohio. No-Streak-Registers. Rock Island Regis-

ter Co., Rock Island, Ill. No Tar In-Roofing Paint. Rutland Fire Clay Co., Rutland, Vt.

Novoid-Bases, Insulation. National Cork Co., Englewood, N. J.

Nox Soot-Soot Remover. Chemical Products Co., Saginaw, Mich. Nu-Air-Fan Blades. Fans, Louvres, Ventilators. Meier Electric, Indianapolis,

Nu-Air—Odor Adsorbers. Charles E. Manning Co., Pittsburgh, Pa. Nu-Alpina—Gravity Roof Ventilators. Inland Steel Products Co., Milwaukee,

Wis. -Arc Welders. Electric Arc, Inc., Nu Arc-Newark, N. J.

Nu Braze-Flux. American Silver Co., Inc., Flushing, N.Y. Nudeck-Roof Cement. United Gilsonite

Laboratories, Scranton, Pa. Nu Galv-Metal Protecting Paint. South-

ern States Iron Roofing Co., Savannah,

Nu-Notch--Diffusers. Knowles Mush-Ventilator Co., Upper Montclair, N. J. Nupla-Mallets. New Plastic Corp., Hol-

lywood, Calif. Nu-Rail-Pipe Fittings. Hollaender

Mfg. Co., Cincinnati, O. Nu-Trojan-Combustion Chambers. A. R. Webber Co., Inc., New Haven, Conn. NuVac-Furnace Vacuum Cleaners. Em-

pire Chemical Products Co., Newark,

Nuweld-Skylight Wire Glass. Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn. Nu-Wood-Rigid Insulation. Wood Con-

version Co., St. Paul, Minn. Nylaflow-Plastic Tubing. Polymer Corp., Reading, Pa.

Nylasint-Plastics, Powders and Resins. Polymer Corp., Reading, Pa.

Nylatron-Plastics, Powders and Resins.

Polymer Corp., Reading, Pa.

Nylo-Seal—Plastic Tubing, Fittings and
Valves. Imperial Brass Mfg. Co.,

Chicago, Ill.

Ny-Sul-Loft—Air Filters. Star Woolen
Co., Cohoes, N. Y.

Chambers, OEM—Combustion Baffles. Oil Equipment Mfg. Corp., New Haven, Conn. OG56-Gas Burner. Banner Burner Co.,

Youngstown, O.

OK—Grinders. Hammond Machinery
Builders, Inc., Kalamazoo, Mich.

O.X.—Punches. Duro-Dyne Corp., Farm-

ingdale, N. Y. Oasis-Dehumidifiers. Ebco Mfg. Co.,

Columbus, Ohio Octopus—Exhausters. Chelsea Fan & Blower Co., Inc., Plainfield, N. J. Ohioan—Water Heaters. Hotstream Heater Co., Cleveland, O. Ohiolite—Hoists. Ohio Hoist Mfg. Co.,

Lisbon, O.

Oil-Aire-Flo-Oil Furnaces. Lennox Industries Inc., Marshalltown, Iowa. Oilifter-Oil Burner Fuel Pumps. A-P

Controls Div., Controls Co. of America, Milwaukee, Wis. Oil-n-Aire-Oil Burners. Breeze Corps.,

Inc., Newark, N. J.

Oil-O-Matic—Oil Burners, Furnaces.

Williams Oil-O-Matic Heating Co.,

Div. of National Union Electric Corp., Columbus, O.

Oilsaver-Furnaces. The Williamson Co.,

Cincinnati, O.
Oil-Treet—Fuel Oil Solvents. Schaefer
Chemical Products Co., Saginaw, Mich. Ol'Faithful-Humidifiers, Maid-O'-Mist, Inc., Chicago, Ill.
Oneida Royal—Furnaces. Oneida Heater

neida Royal—Furnaces. Co., Inc., Oneida, N. Y.

Furnaces. Worsham Co., One-Minute-Furnaces.

Inc., St. Louis, Mo. Opax—Damper Hardware, Damper Linkage Sets. Duro-Dyne Corp., Farmingdale, N. Y.

Oppo-Matic—Duct Dampers and Regu-lators, Damper Hardware. Elgen Mfg. Corp., Long Island City, N. Y. Or-O-Co-Circle-Cutting Torch Attach-

ment. Ideas, Inc., Laramie, Wyo.
Out-O-Wall—Registers. Rock Island Register Co., Rock Island, Ill.

Oxweld—Flux, Welding Apparatus. Linde Co., Div. Union Carbide Corp., New York, N. Y.

Ozark-Refractories. A. P. Green Fire Brick Co., Mexico, Mo. Ozite-Insulation. American Hair & Felt Co., Chicago, Ill.

PBA Unit-Utility Room Furnace. Dowagiac Steel Furnace Co., Dowagiac,

P & H—Hoists, Arc Welders. Harnisch-feger Corp., Milwauke, Wis. P.I.V.—Variable Speed Transmissions. Link-Belt Co., Chicago, Ill. P-K—Nails. Parker-Kalon Div. of Gen-

eral American Transportation Corp.,

Clifton, N. J. PL-210—Flux. Paul-Lewis Laboratories, Inc., Milwaukee, Wis. PP-Gutter Accessories. Profit Products

Co., Chicago, Ill. PRC—Bonding Adhesives and Waterproofing. Products Research Co., Los Angeles, Calif. Pabco-Waterproofing. Fibreboard Paper Products Corp., San Francisco, Calif

Pabco Coolite—Sheet Metal Paint. Pabco Products Inc., San Francisco, Calif.

Pacemaker-Furnaces. The Payne Co., La Puente, Calif.

Pacer-Furnaces. Sequoia Mfg. Co., San Carlos, Calif. Pacific-Furnaces, W. W. Rosebraugh

Co., Salem, Ore. Pacific-Water Heaters. United States

Radiator Corp., Detroit, Mich. Packaged Weather-Store Coolers. General Electric Co., Bloomfield, N. J. Paint-bond-Bonderized Sheets. United

States Steel Corp., Pittsburgh, Pa. Paintgrip-Metal Sheets. Armco Steel Corp., Middletown, Ohio.

Pak-Ice-Machines. Vilter Mfg. Co., Milwaukee, Wis.

Palco Wool-Saferized-Insulation. Pa-cific Lumber Co., San Francisco, Calif. Palmaire—Evaporative Air Conditioning Units. Palmer Mfg. Co., Phoenix, Ariz.

Palm Beach-Controls. National Modulation Co., St. Paul, Minn.

Palmetto-Asbestos Rope, Packing, Gas-kets. Greene, Tweed & Co., North Wales, Pa.

Panelaire-Wall Furnaces. The Payne Co., La Puente, Calif.

Panel-Master-Electric Saws and Attachments, Kett Tool Co., Cincinnati, O. Panelouvre-Louvers. Ventilouver Co.,

Inc., Chicago, Ill. Panelray-Furnaces. Day & Night Mfg. Co., La Puente, Calif.

Papico-Water Heaters. Continental Water Heater Co., Los Angeles, Calif. Para Flo-Diffusers. Barber-Colman Co., Rockford, III.

Paramount-Evaporative Air Condition-Essick Mfg. Co., Los Angeles, Calif.

Paramount—Flashing. Flemm Lead Co., Inc., Long Island City, N. Y.

Paramount-Master-Evaporative Coolers. Essick Mfg. Co., Los Angeles, Calif. Parco-Skylight Lifts. Park City Cornice

Works, Inc., Bridgeport, Conn. Parkway-Furnaces. Heil-Quaker Corp., Nashville, Tenn.

Parx LPG-Water Heaters. EverHot Heater Co., Detroit, Mich.

Peerless-Adhesives and Caulking Compounds. Magic Chemical Co., Brockton. Mass.

Peerless-Stokers. Eddy Stoker Corp., Wheeling, Ill.

Pee Vee Cee-Plastic Tubing, Plastic Sheets. Atlas Mineral Products Co., Mertztown, Pa.

Pemco-Stainless Firebox Fittings, Baffles. Oil Equipment Mfg. Co., New Haven, Conn.

Penetrant-Cleaning Compounds for Air Oakite Products Inc., New Filters. York, N. Y.

Penetrate 77-Rust Preventive Chemicals. S.O.S. Products Co., Inc., Brooklyn, N.Y.

Penetrol-Paint. Flood Co., Hudson,

Penflex-Flexible Metal Hose and Fit-Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
englass—Roof Ventilators. Pennsyl-

Penglass—Roof Ventilators. Pennsylvania Wire Glass Co., Philadelphia,

Pengun-Oil Burners, Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa. Penmetal-Metal Partitions. Penn Metal Co., Inc., Boston, Mass.

Penn-Aire-Furnaces. Union Mfg. Co., Inc., Boyertown, Pa.
Penna—Furnaces. Pennsylvania Furnace

& Iron Co., Warren, Pa.
Penn Drake—Rust Preventive Chemicals,
Fuel Oil Solvents. Pennsylvania Refining Co., Ohio Div., Cleveland, O. Penn Power—Fans. Penn Ventilator Co.

Inc., Philadelphia, Pa. Pentatemp-Air Conditioning Units. Dialatemp, Inc., St. Louis, Mo.

Perco-Flash-Water Heaters. Stamm Mfg. Co., Palisades Park, N. J. Percoproof-Waterproofing. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio.

Perfectaire-Air Conditioning Units, Dehumidifiers, Furnaces, Louvers, Shut-ters, Oil Heaters, Heat Recoverers. Air Conditioning Engineering Co., Cambridge, Mass.

PerfecTemp-Furnaces. Peerless Corp., Indianapolis, Ind.

Perfecto-Combustion Chambers. A. P. Green Fire Brick Co., Mexico, Mo. Perfusaire-Differs. Registers.

Register Co., Cleveland, O. Perima-flo-Metal Duct and Fittings, Furnace Pipe and Fittings. Lennox Indus-tries Inc., Marshalltown, Ia.

Perimsul-Edge Insulation. Baldwin-Ehret-Hill, Inc., Trenton, N. J.

Permadine—Coating Chemical for Steel

or Iron Surfaces. American Chemical Paint Co., Ambler, Pa.

Permadrain—Gutters and Gutter Accessories, Conductor Pipe and Fittings. Permanent Products, Inc., St. Paul, Minn

Permadrain-Gutters and Gutter Accessories (glass fiber). Owens-Corning Fiberglas Corp., New York, N. Y. Perma-Fan-Refrigerating Condensers

Drayer-Hanson, Div. of National-U.S. Radiator Corp., Los Angeles, Calif. Permaglas—Water Heaters. A. O. Smith Corp., Permaglas Div., Kankakee, Ill.

Perma-Ply-Roofing Felt. Owens-Corning Fiberglas Corp., New York, N. Y. Permatower-Cooling Towers. The Marley Co., Kansas City, Mo.

Pernoco-Evaporative Coolers. Pernot Corp., Norwalk, Calif.

Pet-Electric Buffers. Grinders, ers and Sanders, Electric Drills. Portable Electric Tools, Inc., Chicago, Ill.

Pet-Re-Nol-Fuel Oil Tank Solvents. Norman Chemical Co., St. Paul, Minn. Petromiser-Fuel Oil Tank Solvent. Stewart-Hall Chemical Corp., Mt. Vernon, N. Y.

-Metal Workers Machines and Tools, Roofers Tools. Peck, Stow & Wilcox Co., Southington, Conn.

Phoenix-Registers. Air-Factors, Monrovia, Calif.

Phoson-Silver Solder. United Wire & Supply Corp., Providence, R. I.

Phosteem-Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich. Piatt-Controls. Montgomery Products

Co., Lansing, Mich.
Pickle Polish—Stainless Cleaner. American Chemical Paint Co., Ambler, Pa.
Pilotstat—Gas Pilot Controls. Minne-

apolis-Honeywell Regulator Co., Minneapolis, Minn.

Pioneer-Controls. Crown Controls Co., Inc., New Bremen, Ohio. Pittcaulk—Caulking Compounds. Pitts-burgh Plate Glass Co., Pittsburgh, Pa.

Planeweld—Welding Rod. Lincoln Electric Co., Cleveland, Ohio.

Plas-Dux—Caulking Compound. Babbitt Chemical Co., Inc., New Bedford,

Plasti-Calk—Caulking Compounds. Chamberlin Co. of America, Detroit,

Plastic Elastigum-Cement. Barrett Div., Allied Chemical & Dye Corp., New York, N. Y.

Plastic Insulcrete—Refractories. Quigley Co., Inc., New York, N. Y. Plastic PB—Cement Barret Div., Allied Chemical & Dye Corp., New York,

PlastiKon-Rubber Putty, B. F. Goodrich Industrial Products Co., Akron, Ohio. Plastiktrim-Plastic Mouldings.

R. D. Werner Co., New York, N. Y. Plastilock-Bonding Adhesives. B. Goodrich Industrial Products Co., Akron, O.

Plastite-Roof Cement. Coopers Creek Chemical Corp., West Conshohocken,

Plastoid—Caulking Compounds, Furnace Cement. Plastic Products Co., Detroit, Mich.

Plasturbo-Blower Wheels. Mamco Corp., Racine, Wis.

Plexiform-Blowers. Bayley Blower Co., Milwaukee, Wis.

Plica-Metal Hose and Fittings. Flexaust Co., New York, N. Y. Pliotron-Filters. Goodvear Tire & Rub-

ber Co., Inc., Akron, O. Polar-Pak-Air Conditioning Units.

Coleman Co., Inc., Wichita, Kans.
Polar Prince—Air Conditioning Units, Condensing Units. Coleman Co., Inc., Wichita, Kans.

Polar-Solar—Air Conditioning Units. Coleman Co., Inc., Wichita, Kans. Pollen Ex-Air Filters. Associated Mills, Inc., Chicago, Ill.

Poly-Champ—Vapor Barriers. Ludlow Papers, Inc., Needham Heights, Mass. Polyclad-Waterproofing. Carboline Co.,

St. Louis, Mo. Polyfilm-Vapor Barriers. Dow Chemical Co., Midland, Mich.

Polv-Flo-Plastic Tubing, Fittings and Valves. Imperial Brass Mfg. Co., Chicago, Ill.

Polyken-Duct Tape. The Kendall Co., Chicago, III.

PorcelPanels—Curtain Wall Panels. Ingram-Richardson Mfg. Co., Beaver Falls, Pa.

Porcenell-Metal Protective Coatings. Allied Porcenell. Inc., Waukegan. III. Poro-Klean-Fuel Oil Filters. Cuno Engineering Corp., Meriden, Conn.

Porto-Shear-Electric Shears. Black & Decker Mfg. Co., Towson, Md. Portovent-Flexible Duct. Flexaust Co.,

New York. N.Y. Powair-X-Hauster-Roof Ventilators. G. C. Breidert Co., San Fernando,

Calif Powerbilt-Exhausters. Power Engineering Co., Chicago, Ill.

Power-Flo-Blowers, Exhausters. Brook-side Products Co., Inc., McCordsville,

Power-Flow—Ventilators. De Bothezat Fans Div., American Machine and Metals, Inc., East Moline, Ill.

Powerloid-Magnetic Switches. Guardian Electric Mfg. Co., Chicago, Ill.

Powermaster-Fans. Acme Engineering & Mfg. Corp., Muskogee, Okla.

Power Mate-Stud Guns. Remington Arms Co., Inc., Bridgeport, Conn.

Power-Poise-Electric Motors. Brown-Brockmeyer Co., Inc., Dayton, O.

PowerRated-Commercial-Industrial Furnaces. Jackson & Church Co., Sagi-naw, Mich.

naw, MICh.

Powerstat—Gas Pressure Regulating
Valves. Mercoid Corp., Chicago, Ill.

Power Vane—Drills. Chicago Pneumatic
Tool Co., New York, N. Y.

Powrmatic—Furnaces. Water Heaters,
Oil Burners. Kresno-Stamm Mfg. Co.,
Palisades Park, N. J.

Precipitron-Electrical Cleaners. Air Westinghouse Elec. Corp., Sturtevant Div., Hyde Park, Boston, Mass. Pre-fab-ric—Flexible Duct Connections.

Cain Mfg. Inc., Birmingham, Ala. Premier—Welding Rod. American Steel & Wire Div., U. S. Steel Corp., Cleveland, Ohio.

Premier Automatik-Stoker-Fired Conditioning Furnaces. Premier Furnace Co., Dowagiac, Mich. Premier DeLuxe-Furnaces. Premier Fur-

nace Co., Dowagiac, Mich. Premier Master-Furnaces. Premier Fur-

nace Co., Dowagiac, Mich.

Pre-Notch—Ducts, Furnace Pipe and Fittings. Gray Metal Producers, Inc., Rochester, N. Y.

Republic Products Pre-Pak-Furnaces. Co., Philadelphia, Pa. Prepncote—Rust Preventive Chemical. Neilson Chemical Co., Detroit, Mich.

Preprite-Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich.

Prepwash—Rust Preventive Chemicals. Neilson Chemical Co., Detroit, Mich. Presstico—Roof Cement, Caulking Com-

pounds, Paint. Pressitie Div., American-Marietta Co., St. Louis, Mo.

Pres-Stix—Adhesive Tape for Sealing
Duct Joints. American Tape Co., Detroit, Mich.

Presst-O-Cel-Tubing Insulation.

tite Div., American-Marietta Co., St. Louis. Mo.

Louis, Mo.

Prest-O-Lite—Refrigerant Leak Detectors,
Soldering Torches, Welding Equipment. Linde Co., Div. Union Carbide
Corp., New York, N. Y.

Prideline—Burners and Furnaces. Thermo-Products, Inc., North Judson, Ind.

Prime-Kote-Roofing Paint. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio.

Primco-Hygrometers, Psychrometers, Electric Relays, Thermometers and Thermostats. Precision Thermometer and Instrument Co., Philadelphia, Pa. Profilm-Metal Protective Coating lied Porcenell, Inc., Waukegan, Ill. Propellair—Fans and Ventilators. R

Robbins & Myers, Inc., Springfield, Ohio.

Prop-R-Temp—Heat Pump. Typhoon
Heat Pump Co., Div. Hupp Corp., Tampa, Fla.

Protectal—Sheet Metal Paint. Coopers Creek Chemical Corp., West Conshohocken, Pa.

Protecto-glo—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Protectoline-Rust Preventive Chemicals. Magnus Chemical Co., Garwood, N. J. Protectomotor-Filters. Dollinger Corp., Rochester, N. Y.

Protector—Snow Guards. David Levow, Inc., South Hackensack, N. J.

Protectorelay-Oil Burner Relays. Min-Regulator neapolis-Honeywell Minneapolis, Minn.

Protektoflex—Duct and Tubing Insula-tion. Miracle Adhesives Corp., Bell-more, L. I., N. Y.

Psychron—Psychrometers. Friez Instru-ment Div., Bendix Aviation Corp., Baltimore, Md.

Pul-Air-Ventilators. Penn Ventilator Co. Inc., Philadelphia, Pa.

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Pul-Lift-Hoist, Yale & Towne Mfg. Co., Philadelphia, Pa.
Pullman—Ventilators.

Penn Ventilator

Co. Inc., Philadelphia, Pa.
Pullmax—Sheet Metal Working Machines. American Pullmax Co., Inc., Chicago, Ill.

Pulsatherm—Controls. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Pump-Aid--Winter Protective Pump Compound. The Garman Co., St.

Conditioning Punch-aire-Air Units. Cool-Ette, Inc., Detroit, Mich. Punchawl—Tools. Hub Specialty Co.,

Reading, Mass. Punch Pal—Punches. Wilder Mfg. Co., Inc., Salinas, Calif.

Punkah-Louvers and Shutters. Thermotank, Inc., Detroit, Mich. Pur Air-Odor Absorbers, Filters. Barne-

bey-Cheney Co., Columbus, O. Pure-Air—Filters. Arco Mfg. Corp., New York, N. Y.

Puritron—Air Sternizers.
Corp., New Haven, Conn.
Purox—Oxy-Acetylene Welding Equipment and Torches. Linde Co., Div. Puritron-Air Sterilizers. Ozo

N. Y Push Button-Controls. White-Rodgers Co., St. Louis, Mo.

Pyralux-Enamels and Lacquers. E. I. du Pont de Nemours & Co., Wilming-

Pyranol-Electric Capacitors. General Electric Co., Capacitor Dept., Hudson Falls, N. Y. Pyratherm—Controls. Mercoid Corp.,

Chicago, Ill. Pyrojector-Ventilators. Swartwout Fab-

ricators, Inc., Kokomo, Ind. Pyrosteel-Refractories. A. P. Green Fire Brick Co., Mexico, Mo.
Pyrotron—Temperature Recorders, Bailey

Meter Co., Cleveland, Ohio.

# Q

Q-Chrome—Insulating Cement. Quigley Co., Inc., New York, N. Y. Q-Chromastic-Insulating Cement. Quig-

ley Co., Inc., New York, N. Y. Q-T Ductliner—Building and Duct Insulation. Celotex Corp., Chicago, Ill.

Quaker City—Gutters and Gutter Accessories, Snow Guards, Conductor Pipe and Fittings, Ridge Roll. Berger Bros. Co., Philadelphia, Pa. Quantrol—Duct Turning Vanes. Regis-ter & Grille Mfg. Co., Inc., Brooklyn,

Quick Action-Clamps. C W R Mfg. Co.,

Morro Bay, Calif. Quick-As-Wink-Solenoid Valves, Metal

Ouick Drive—Masonry Stud Driver. Omark Industries, Inc., Portland, Orc. Quick Heat—Furnaces. American Stove

Co., St. Louis, Mo.
Quick Heat—Blowers, Furnaces. Tjernlund Mfg. Co., St. Paul, Minn.
Quick Heater—Oil Burners, Furnaces,
Stokers. Quick Furnace & Supply Co.,
Dr. Mainer, Lowa

Des Moines, Iowa. Quick-Set-Roof Cement. Bird & Son, Inc., East Walpole, Mass.

Quick-Set-Dividers and Notchers. Reiner & Campbell Co., Inc., Elizabeth, N.

Quiet-Duct-Sound Absorbers for Ducts. Industrial Acoustics Co., Inc., New York, N. Y. uiet Flame—Oil Burners. Volcano

Volcano Burner Mfg. Inc., New York, N. Y.

Quiet Kool—Air Conditioning Units. Emerson Radio & Phonograph Corp., Jersey City, N. J.

Quiet May-Furnaces. Penn Boiler Div., Pebbco Industries Inc., Lancaster, Pa. Quiet-Vent-Sound Absorbers for Ducts. Industrial Acoustics Co., Inc., New York, N. Y.

Quiet Zone-Blowers. Palmer Mfg. Co.,

Phoenix, Ariz.

Quik-Joint—Pipe Fittings. Guardian
Products Corp., Michigan City, Ind. Quik-Kote-Cement. Grant Wilson, Inc., Chicago, Ill.

Quilt-Insulation. Samuel Cabot, Inc., Boston, Mass.

RB-Integral-Vibration Isolating Pads. Vibration Mountings, Inc., Corona, N.

Y. G. Grilles. Register & Grille Mfg. Co., Inc., Brooklyn, N.Y.

R & I—Furnace Cement and Insulation, Baffles, Combustion Chambers. Refractory & Insulation Corp., New York, N.Y.

R & I Moldit Castables—Refractories.

Refractory & Insulation Corp., New York, N. Y.

York, N. Y. R. & M.—Motors, Hoists, Air Conditioning Units. Robbins & Meyers, Inc., Springfield, Ohio.

RP-Dust & Grease Filters. R Products Corp., Madison, Wis. Research RP Pressure Koter-Odor Adsorbers for

Duct Systems. Research Products Corp., Madison, Wis. RP Super Handi-Koter—Odor Absorbers.

Research Products Corp., Madison, Wis.

R - R - M-Hygrometers, Psychrometers, Thermometers. Palmer Thermometers,

Inc., Cincinnati, Ohio.
Racine—Stokers. Nelson Bros. & Strom
Co., Racine, Wis.
Radiant-Aire—Furnaces. Monogram In-

dustries, Inc., Quincy, Ill.
adiaire—Baseboard Diffusers. York-Radiaire—Baseboard D Shipley, Inc., York, Pa. Radiaire Base-Heat-Baseboard Diffusers.

York-Shipley, Inc., York, Pa.

Radius Master—Templates. Rapidesign, Inc., Glendale, Calif. Radolite—Insulating Cement and Re-fractories. Pyrolite Products Co., fractories. Pyro Cleveland, Ohio.

Ra-Grid-Electric Heating Panels. Blue Ridge Glass Div. of American-St. Gobain Corp., Kingsport, Tenn. Ra-Heat—Electric Heating Cable

Electric Wall Heaters. Tennessee Plastics, Inc., Johnson City, Tenn.
Rail Hugger—Hand Hoists. Yale &

Towne Mfg. Co., Philadelphia, Pa.
Rainaire—Ducts and Duct Fittings.
Schecter Bros. Co., Philadelphia, Pa.
Ramco—Chimney Caps and Tops, Ven-

Ramev—Chimney Caps and 10ps, Ven-tilators. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. Ramex—Pneumatic Hammers. Duro-Dyne Corp., Farmingdale, N. Y. Ramfeed—Stokers. Canton Stoker Corp.,

Canton, Ohio. Ranarex-CO, Analyzers. Permutit Co.,

Div. of Pfaudler Permutit Inc., New York, N. Y. Ranchief—Furnaces. Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill.

Rangaire—Cooling Coils, Condensers, Furnaces, Air Conditioning Units, Condensers,

Condensing Units. Cobell Industries, Inc., Cleburne, Tex.
Range-Ventor—Fans, Vent Hoods. Universal Blower Co., Birmingham, Mich. Rapays-Metal Cleaner. Randolph-Page, Inc., New York, N. Y.

Rawl-Anchors—Bolts. Rawl Inc., New Rochelle, N. Y Rawlplug Co., Inc., New Rochelle, N. 1.
Rawl Calk-ins—Expansion Bolts. Rawlplug Co., Inc., New Rochelle, N. Y.
Puransion Bolts. Rawlplug

Inc., New Rochelle, N. Y. Rawl Hammer-Set-Bolts. Rawlplug Co.,

Inc., New Rochelle, N. Y. Rawl-Tapers—Expansion Bolts. plug Co., Inc., New Rochelle, N. Y.
Raymaster—Refrigerant Leak Detectors.
George W. Gates & Co., Inc., Franklin Sq., L. I., N. Y.
Reciprosam.

Reciprosaw-Electric Saw. Skil Corp., Chicago, Ill

Reco-Fans, Motors, Buffers, Relays and Switches. Reynolds Electric Co., River Grove, III.

Red Cap-Spinner Ventilator. Warner Ventilator Co., LaGrange, Ind.
Red Crown—Domestic Water Heaters. Hynes & Cox Electric Corp., Burnt Hills, N. Y.

Red Devil—Furnace Cement. Pecora,

Inc., Philadelphia, Pa.

Reddy-On-Furnace Door Closer. Leisur-Maid Mfg. Corp., Grand Rapids, Mich. Red End—Hack Saw Blades. Simonds Saw & Steel Co., Fitchburg, Mass. Red Head-Expansion Anchors. Phillips Drill Co., Michigan City, Ind.

Redi-Kleen-Air Filters. Microtron Corp., Charlotte, N. C.

Redi-Set-Sheet Metal Workers' Tools Whitney Metal Tool Co., Rockford,

Red Metal-Roof Paint. Rutland Fire Clay Co., Rutland, Vt.

Red-Reading-Mercury-Hygrometers, Psychrometers and Thermometers. Palmer Thermometers, Inc., Cincinnati, Ohio. Red Seal-Sheets. Benjamin Wolff and Co., Chicago, Ill.

Red Streak-Shear Blades, Simonds Saw & Steel Co., Fitchburg, Mass.

Red Tang-Metal Files. Simonds Saw & Steel Co., Fitchburg, Mass.

Red Top-Insulation. United States Gypsum Co., Chicago, Ill. Top-Thermostats. H-B Instrument

Co., Philadelphia, Pa. Red X-Cleaners and Polishers. Turco Products, Inc., Los Angeles, Calif.

Regal-Roofing Cement. Johns-Manville, New York, N. Y.

ReGalv—Cold Galvanizing Compounds. RotoMetals, San Francisco, Calif. Registrite—Plastic Panels and Sheets. Campco Div., Chicago Molded Prod-

ucts Corp., Chicago, Ill. Rego-Brazing To Corp., Chicago, Ill. Torches. Chemetron

Regulaire-Furnaces. Perfection Industries, Div. of Hupp Corp., Cleveland, 0

Reillaloy-Furnace Repair Parts. Pitts-burgh Furnace Parts Co., Pittsburgh,

Reito-Humidifier Valves. Reitman Mfg. Co., Oakland, Calif.

Reloid-Electrical Relays. Guardian Electric Mfg. Co., Chicago, Ill.

Remotaire-Air Conditioning Unit. American Radiator & Standard Sani-tary Corp., Plumbing and Heating Div., New York, N. Y.

Renu-glas-Air Filters. American Air Filter Co., Inc., Louisville, Ky. Repco-Furnaces. Republic Products

Co., Philadelphia, Pa. Republic-Induced Draft Blowers, Fur-

naces, Conversion Gas Burners, In-cinerators, & Heat Recoverers. Auto-gas Co., Bellwood, Ill.

Republic-Taylor-Terne Roofing Plates. Republic Steel Corp., Cleveland, Ohio. Return Aire—Furnace Humidifiers. Herrmidifier Co., Lancaster, Pa.

Rev-flo-Furnaces. Sequoia Mfg. Co., San Carlos, Calif.

Revolving-Ventilator. Revolving—Ventilator. Accurate Sheet Metal & Mfg. Works, Chicago, Ill. Revolving—Roof Ventilators. Burt Mfg. Co., Akron, Ohio

Revolving Ventilators-Vent Caps. curate Sheet Metal & Mfg. Works, Chicago, Ill.

Rex—Bearings, Fans, Fan Blades, Blow-er-Filter Units, Blowers, Blower Wheels. Air Controls Inc., Div. Cleve-land Heater Co., Cleveland, Ohio.

Rex-Bearings and Nozzles. Chain Belt Co., Milwaukee, Wis. Rex-Water Heaters. Cleveland Heater

Co., Cleveland, Ohio. Rex—Arc Welders. Peer, Inc., Benton Harbor, Mich.

Rex-Roof Flashing. Simplex Mfg. Co., Fond du Lac, Wis. Rexair-Gas Burners, Furnaces. Reif-

Rexoil, Inc., Buffalo, N.Y. Rex-Airate-Fans, Blower. Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio.

Rex-Air-Pak—Blower Units. Air Controls, Inc., Div. Cleveland Heater Co., Cleveland, Ohio.

Welders, Welding Rods. Rexarc-Arc Sight Feed Generator Co., West Alexandria, Ohio.

Rexco-Refractories. RexRoto Corp., Walled Lake, Mich.

Rex-Flex-Flexible Duct, Flexible Metal Hose and Fittings. Flexonics Corp., Maywood, Ill.

Rexglas-Water Heaters. Cleveland Heater Co., Cleveland, O. Rexheat-Water Heaters. Reif-Rexoil,

Inc., Buffalo, N. Y. Rexide—Metal Protecting Paint. A. C. Horn Co., Inc., Long Island City, N. Y.

Rexoil—Oil Burners. Reif-Rexoil, Inc., Buffalo, N. Y. Rex-Tube-Flexible Duct. Flexonics Corp., Maywood, Ill.

Rex-Weld-Flexible Duct. Flexonics Corp., Maywood, Ill. Rex-Weld Unimetal-Flexible Hose.

Flexonics Corp., Maywood, Ill. Rheotrol-Horizontal Oil Burners. Breese Burner, Inc., Chicago, Ill. Rhinamel-Enamels. Tropical Paint Co.,

Cleveland, Ohio. Rhino-Compounds. Pecora, Inc., Philadelphia, Pa.

Ribbon Air-Baseboard Air Diffusers. Woodside Engineering Co., Franklin Park, III.

Rice-Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Brush Co., Worcester, Mass. Duct. Richducts-Non-Metallic

Richkraft Co., Chicago, Ill. Richflex-Building Insulation. The Richkraft Co., Chicago, Ill.

Richfoil—Building Insulation. Richkraft Co., Chicago, Ill. Rid All-Incinerators. Schwab Furnace

Co., Milwaukee, Wis. -Ventilators. Penn Ventilator Co.

Inc., Philadesp.
Ridgevent—Roof Ventilators.
Ventilator Co., Chicago, Ill.
Ventilator Roof Ventilator.
Ridge Roof Ventilator.
Iowa.

Ridgolator—Ridge Roof Ventilator.
Klauer Mfg. Co. Dubuque, Iowa.
Riflex—Flexible Hose and Fittings.
United Metal Hose Co., Inc., Long Island City, N.Y. Rigidon-Plastic Sheets. Heil Process

Equipment Corp., Cleveland, O. Rigid-PVC—Plastic Tubing. Easton Plastics Products Co., Inc., Easton, Pa.

Rima-Universal-Portable Electric Shears, Gutter Forming Machines. Malden Research and Development Co., Inc., Malden, Boston, Mass.

Rimguard-Screws. Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
Rimset—Thermostat. Penn Controls, Inc.,

Goshen, Ind. Rip-o-Lin-Enamels. Glidden Co., Cleve-

land, Ohio. Ripple Fin-Coils. McQuay, Inc., Minneapolis, Minn. Rite-Flo-Air Diffusers, Grilles, Registers. Lenly Mfg. Co., Inc., Los

Angeles, Calif. Rival-Conductor Pipe and Fittings. David Levow, Inc., South Hackensack,

N. J. River Breeze-Exhausters and Fans. Kloppenborg Foundry & Fan Co., Davenport, Ia.

Riviera-Air Conditioning Units. Warren Webster & Co., Camden, N. J. R-Mir-Dek-Paint. Miracle Adhesives Corp., Bellmore, L.I., N. Y.
Robot—Thermostats. Miller-Harris In-

strument Co., Milwaukee. Wis. Roesch-Clamps. C W R Mfg. Co., Morro Bay, Calif.

Roll-Kleen-Filters. Farr Co., Los Angeles, Calif. Matrix-Welding Rod. All-State

Welding Alloys Co., Inc., White Plains, Roll-O-Mat-Filters. American Air Filter

Co., Inc., Louisville, Ky.
Rollotron—Filters. American Air Filter
Co., Inc., Louisville, Ky.
Roof Flange—Flashing. Eagle-Picher Co.,

cincinnati, Ohio.

Cincinnati, Ohio.

Tropical Paint Co., Roofkoter-Paint.

Roof Line-Roof Ventilators. E. Van Noorden Co., Boston, Mass. Units.

Roomaire—Air Conditioning Units.
Young Radiator Co., Racine, Wis.
Rosin X—Flux. M. W. Dunton Co., Providence, R. I.

Rotary-Ventilators. Swartwout Fabricators, Inc., Kokomo, Ind.

Roto-Insulating Cement and Combustion Chambers, Rex-Roto Corp., Detroit. Mich.

Roto-Clone-Dust Collectors. Air Filter Co., Inc., Louisville, Ky. Rotoflame-Oil Burners. Oil Equipment Laboratories, Inc., Elizabeth, N. J.

Roto-Hammers-Electric Hammers. Skil Corp., Chicago, Ill. Rotojet-Nozzles. Binks Mfg. Co., Chi-

cago, Ill. Rotomet-Flux, RotoMetals, San Fran-

cisco, Calif. Rotometric-Solder. RotoMetals,

Francisco, Calif. Rotospray-Air Washers. Carrier Corp., Syracuse, N. Y.

Royal—Furnaces. Chattanooga Royal Co., Chattanooga, Tenn.

Royal-Ventilators. Penn Ventilator Co. Inc., Philadelphia, Pa. Royal-Water Heaters. Bastian-Morley

Co., Inc., LaPorte, Ind. Royal Blue-Acid and Furnace Brushes. Schaefer Brush Mfg. Co., Milwaukee, Wis.

Royal Clipper-Metal Cutter. Merchandising and Manufacturing Associates, Inc., Lancaster, Pa.

Royal Purple-Barometric Draft Dampers. Walker Mfg. & Sales Corp., St. Joseph, Mo.

Rubalt-Paints, Waterproofing. Alfred Hague & Co., Inc., Div. of Lacquer & Chemical Corp., Brooklyn, N. Y.

Rubber Calk-Sealants for Curtain Wall Panels. Products Research Co., Los Angeles, Calif.

Rubber - in - Shear-Vibration Isolating Pads. Korfund Co., Long Island City,

Rubbon—Solder. All-State Welding Alloys Co., Inc., White Plains, N. Y. Rubyfluid—Solder, Soldering Flux, Ruby Chemical Co., Columbus, Ohio.

Rusco-Air Conditioner Window Panels, Windows, F. C. Russell Co., Columbiana, O.

Rust Bloc No. 20—Coating. Turco Products, Inc., Washington, D. C. Rustend-Rust Preventive Chemicals. Co., Inc.,

American Sand-Banum Merrick, N. Y. Rustrem-Aluminum Paint. Speco, Inc., Cleveland, Ohio.

Rust Sol-Metal Cleaner. Klem Chemicals, Inc., Dearborn, Mich.
Rysdon—Ventilators. Sioux Steel Co.,

Sioux Falls, S. D.

SC-Bearings, Dodge Mfg. Corp., Mishawaka, Ind.

SC Airditioner-Air Conditioning Units. Modine Mfg. Co., Racine, SCM-Bearings, Dodge Mig. Corp., Mishawaka, Ind.

S.D.T. Freeze Proof—Coils. John J. Nesbitt, Inc., Philadelphia, Pa. S-E—Gravity Roof Ventilators. Hirsch-man-Pohle Co., Inc., LeRoy, N. Y. SGP—Gas Conversion Burners. Security

Mfg. Co., Kansas City, Mo. I. S.—Cement. Barrett Div.,

Chemical & Dye Corp., New York, N. S-L-Bar Folders, Nibblers, Slitting Ma-

chines. St. Louis Tool Co., St. Louis, Mo SL-V-Belts. Dodge Mfg. Corp., Mish-

awaka, Ind. S-N-S-Expansion Anchors. U. S. Ex-

pansion Bolt Co., York, Pa. S.R.P. 75-Sheet Metal Paint. L. Sonneborn Sons, Inc., New York, N. Y.

S.R.P. 87—Sheet Metal Paint. L. Sonne-born Sons, Inc., New York, N. Y.

ST-type-Gas Burner Pilots. John Zink Co., Tulsa, Okla.

Sabco-Aluminum Paint. American Sand-Banum Co., Inc., Merrick, N. Y SaberSaw-Saw Attachment, Thor Power

Tool Co., Aurora, III.
Saf-Aire—Furnaces. Stewart-Warner
Corp., Heating and Air Conditioning

Div., Indianapolis, Ind.

Safe-Guard—Protective Paper for Polished Metal Surfaces. Adhesive Tape Corp., Brooklyn, N. Y. Safe-Hi—Ladder Shoes. Rose Mfg. Co.,

Denver, Colo. Safe-T-Matic-Masonry Nail Driver. Safety Nail Driver Corp., Clifton, N.J.

Safetak-Adhesives, Cain Mfg. Inc., Birmingham, Ala. Safeway-Warehouse Trucks. American

Pulley Co., Philadelphia, Pa. Safti-Vent-Furnaces H. C. Little Burn-

er Co., Inc., San Rafael, Calif. Sago-Treet-Fuel Oil Tank Solvent. Schaefer Chemical Products Co., Saginaw, Mich.

St. Louis-Stoker. Ormsby-Osterman Co., St. Louis, Mo.

Sairset-Refractories. A. P. Green Fire Brick Co., Mexico, Mo. Salamander-Roofing Felt. Johns-Man-ville, New York, N.Y.

Samco-Cement. Standard Asbestos Mfg. Co., Chicago, Ill.

Samco-Incinerators. Syrall Mfg. Co., Syracuse, N. Y.

Sampson-Furnace Brushes. Worcester Brush & Scraper Co., Div. Mason Worcester Brush Co., Worcester,

Sand-Banum-Water Conditioners. Amer-Sand-Banum Co., Inc., Merrick,

N. Y. Sands-Water Heaters, Sands Mfg. Co., Cleveland, O.

Sanpan-Plastic Panels. Marco Co., East Orange, N. J. Santolene-Fuel Oil Solvent. Monsanto

Chemical Co., St. Louis, Mo.
Saran-Cleanable Air Filters. Time
Tested Products Co., Houston, Tex.

Satanite-Refractories. A. P. Green Fire Brick Co., Mexico, Mo.

Saturol-Degreasing Compound, Oil Tank Solvents. Oakite Products Inc., New York, N. Y.

Sav-A-Tank-Rust Preventive. Sudbury Laboratory, Sudbury, Mass.
Sav-Haf—Oil Burners. Breeze Corp.,

Inc., Newark, N. J. Saw Gun-Electric Hack Saw. Mid-States Welder Mfg. Co., Chicago, Ill.

Sawmaster-Power Hack Saws. Miller-Knuth Mfg. Co., Auburn, Nebr. Sawzall-Electric Saws and Attachments, Electric Drills. Milwaukee Electric

Tool Corp., Milwaukee, Wis. Sax-Oil Burners. Aldrich Co.,

ming, Ill. Scalex-Cleaning Compounds. Lester Laboratories, Inc., Atlanta, Ga.

Schenck—Balancing Equipment. Cosa Corp., New York, N. Y

Schild-Bilt-Attic Fans. Fresh Air Circulator Co., Houston, Tex. Schmidt-Soldering and Brazing Torches.

Minn-Kota Foundry & Mfg. Co., Moorhead, Minn. Scoop-Rail-Duct Turning Vanes. Cain

Mfg. Inc., Birmingham, Ala. Scorbord-Edge Insulation. Dow Chem-

ical Co., Midland, Mich. Scotch-Adhesive Duct Tape. Minnesota

Mining & Mfg. Co., Coated Abrasives and Related Products Div., St. Paul, Minn.

Scotchply-Plastic Sheets. Minnesota Mining & Mfg. Co., Coated Abrasives and Related Products Div., St. Paul, Minn.

Scottfoam-Fibers for Air Filters. Scott Paper Co., Chester, Pa.

Scout-Water Heaters. Bastian-Morley Co., Inc., La Porte, Ind.

Screw-King-Variable Speed Transmissions. American Pulley Co., Philadelphia, Pa.

Screw-Tite-Nails. Independent Nail & Packing Co., Bridgewater, Mass. Scrugun-Automatic Screw Driver. Black

& Decker Mfg. Co., Towson, Md. Sealap—Roofing Cement. Johns-Manville, New York, N.Y.

Seal'd Vent-Water Heaters. Bastian-Morley Co., Inc., La Porte, Ind. Sealed-Life-V-Belts. Dodge Mfg. Corp., Mishawaka, Ind.

SealMaster-Bearings. Stephens-Adamson Mfg. Co., Aurora, Ill. Sealtak-Duct Joint Sealers. Cain Mfg.

Inc., Birmingham, Ala. Sealtight-Roof Cement, Caulking Com-pounds, Roofing Felt. W. R. Meadows,

Inc., Elgin, Ill. Seal-Tight-Filter Frames and Filter Frame Sealing Gaskets. George Evans

Corp., Moline, Ill. Sealtight-Waterproofing Materials. Coopers Creek Chemical Corp., West Conshohocken, Pa.

Seal-Tite-Registers. Char-Gale Mfg. Co., Minneapolis, Minn.

Seal-Tite-Ducts and Duct Fittings, Dampers, Draft Diverters, Small Pipe Heating Systems, Furnace Pipe and Fittings. Williamson Co., Cincinnati,

Sealtite-Roof Cement and Felt Roofing. Keasbey & Mattison Co., Ambler, Pa. Seasonmaker-Air Conditioning Units, Evaporative Coolers. McQuay, Inc., Minneapolis, Minn.

Minneapolis, Minn.
Seasonmaster—Air Conditioning Units.
McQuay, Inc., Minneapolis, Minn.
Seazonaire—Unitary Air Conditioners.
Marlo Coil Co., St. Louis, Mo.

Seilon-Plastic Panels, Non-Metallic Sheets. Seiberling Rubber Co., Plastics

Div., Newcomerstown, O. Selectaflow—Controls. Detroit Controls Div. of American-Standard, Detroit, Mich.

Selectair—Air Conditioning Units. S. T.
Johnson Co., Oakland, Calif.

Select-Aire-Furnaces. Metzger Machine Engineering Co., Thermoflo Div., Milwaukee, Wis.

Select-O-Speed-Variable Speed Transmissions. Lovejoy Flexible Coupling Co., Chicago, Ill.

Selectra-Control Systems. Maxitrol Co., Detroit, Mich.
Selectric—Storage Water Heaters. Bastian-Morley Co., Inc., LaPorte, Ind.
Selfweld—Welding Rod. Lincoln Electric

Co., Cleveland, O.
Sells—Bearings. Royersford Foundry &

Machine Co., Royersford, Pa. Semco-Dies, Sheet Metal Working Ma-

chines. Service Machine Co., Inc., Elizabeth, N. J.

Sems-Sheet Metal Screws. Shakeproof Div., Illinois Tool Works, Elgin, Ill. Sems-Screws. Parker-Kalon Div. General American Transportation Corp., Clifton, N. J.

Sensatherm-Thermostats. Mercoid Corp., Chicago, Ill. Sensitrol-Electric Relays. Daystrom-

Weston Sales Div., Daystrom Inc., Newark, N. J. Sentinel-Gas Water Heaters. Holly-

General Co., Pasadena, Calif. Sentry-Tank Gauges. Krueger Sentry Gauge Co., Green Bay, Wis.

Service-Master-Truck Bodies. McCabe Powers Auto Body Co., St. Louis, Mo. Service-Twins-Truck Bodies. McCabe

Powers Auto Body Co., St. Louis, Mo. Shafconaire-Induced Draft Blower, Furnaces, Direct Fired Heaters, Duct Heaters. OverHead Heaters, Inc., Detroit, Mich.

Shafer-Bearings. Chain Belt Co., Milwaukee, Wis.

Shaft-King-Variable Speed Transmis-sions. American Pulley Co., Philadelphia, Pa.

Shear-Flex—Vibration Isolating Bases and Pads. Vibration Mountings, Inc., Corona, N. Y.

Shelhed-Oil Burners. Waterair Co., Medford, Mass.

Shield-Arc-Welding Rod, Welders Lin-coln Electric Co., Cleveland, Ohlo. Shock Absorbing-Pillow Blocks. Tri-angle Mfg. Co., Oshkosh, Wis.

Shopmaster-Sheet Metal Working Machines. Engel Sheet Metal Equipment, Inc., St. Louis, Mo.

Shopmate-Electric Buffers, Polishers and Sanders, Electric Drills. Portable Electric Tools, Inc., Chicago, Shorty-Furnaces. John Zink Co., Tulsa,

Shur-Flo-Draft Boosters. Walker Mfg. and Sales Corp., St. Joseph, Mo. Shur Grip—File and Solder Iron Handles.

Duro-Dyne Corp., Farmingdale, N. Shut-O-Vent-Louvers and Shutters. Reed Unit-Fans, Inc., New Orleans, La.

Sierra Air—Evaporative Coolers. International Sales Co., San Francisco, Calif. Sievert—Soldering Furnaces and Torches.
J. A. Sanders, Fulton, N. Y.
Sil-Bond—Silver Solder. United Wire &

Supply Corp., Providence, R. I. Silensair—Sound Absorbers for Ducts. Sound Reduction Corp., East Hartford, Conn

Silent Duct-Flexible Duct Connections. Elgen Míg. Corp., Long Island City,

Silent-glow-Oil Burners. Caloroil Burners Corp., Hartford, Conn.

Silent Knight-Shut Off Valves. White-Rodgers Co., St. Louis, Mo. Silent Korth-Oil Burners, Eckhart Mfg.

Co., Inc., Union, N. J.
Silentride—V Belts. Zatko Metal Products Co., Euclid, O.
Silentube—Sound Absorbers for Ducts

Sound Reduction Corp., East Hartford,

Sil-Flux-Flux. United Wire & Supply Corp., Providence, R. I. Sil-Fos—Solder. Handy & Harman, New

York, N. Y. Silicon Bronze-Bolts. Chase Brass &

Copper Co., Inc., Waterbury, Conn. -Fuel Oil Tank Solvent. Petroleum Solvents Corp., New York, N. Y. Siloy-Soder-Solder. L. B. Allen Co.,

Inc., Chicago, Ill. Silvercel—Duct Insulation. Silvercote Products, Inc., Chicago, Ill.

Silver-Champ-Building Insulation. Ludlow Papers, Inc., Needham Heights,

Silver-Soder-Solder. L. B. Allen Co.,

Inc., Chicago, Ill. Silver Steel—Band Saw and Hack Saw Blades. E. C. Atkins & Co., Indianapolis, Ind.

Weld-Solder. Eutectic Welding Alloys Corp., Flushing, N. Y. Simplex-Vise. Desmond-Stephan Mfg.

Co., Urbana, O. Sim-trol—Barometric Dampers. Simplex Mfg. Co., Fond du Lac, Wis. Sioux—Drills, Electric Saw Blades,

Grinders, Metal Spray Guns, Sanders. Albertson & Co., Inc., Sioux City,

Siphon-Roof Ventilators. Octagon Ventilator Co., Chicago, Ill.

Washers. Sirocco-Blowers, American-Standard Industrial Div., Detroit, Mich.

Sisalite-Vapor Barriers. American Sisalkraft Corp., Attleboro, Mass. Sisalation-Reflective Insulation.

ican Sisalkraft Corp., Attleboro, Mass. Skimmer-Dust Collectors. American Air Filter Co., Inc., Louisville, Ky.

Sky-Blast—Roof Ventilators. Robbins &

Myers, Inc., Springfield, O. Skydome—Skylights. W. Inc., Cambridge, Mass. Wasco Products,

Ventilators. Arex Co., Skyline-Roof Chicago, Ill.

Skymaster-Roof Ventilators. Acme Engineering & Mfg. Corp., Muskogee,

Slack Tube-Gages. F. W. Dwyer Mfg. Co., Michigan City, Ind.

Slatekote-Roofing Felt. Johns-Manville, New York, N. Y.

Sleekline-Furnaces. Heil-Quaker Corp., Nashville, Tenn.

Sleek-Line-Roof Ventilators. E. Van Noorden Co., Boston, Mass.

Sleevoil-Bearings. Dodge Mfg. Corp., Mishawaka, Ind. Slim Jim-Air Conditioning Units. Air Products, St. Louis, Mo.

Products, St. Louis, Mo.
Slim/Trim—Electric Heaters. Modernheat Cable Corp., Kingsport, Tenn.
Slo-Speed—Motors. Sterling Electric Motors, Inc., Los Angeles, Calif.
Sloss—Building Insulation. U. S. Pipe & Foundry Co., Birmingham, Ala.
Sludgemaster—Fuel Oil Tank Solvent.
Stewart-Hall Chemical Corp., Mt. Vernon, N. Y.

Sludge Solvent—Fuel Oil Tank Solvents.

Montgomery Chemical Co., Jenkintown, Pa.

Sludgout-Fuel Oil Tank Solvent. Metropolitan Refining Co., Inc., Long Island City, N. Y.

Slugger—Pneumatic Hammer. Modern Mfg. Co., Inc., Willow Grove, Pa. Smith's—Cleat Benders. R. E. Smith,

Waukegan, Ill. Smogmaster—Incinerator. Bowser, Inc., Incineration Div., Cairo, III.
Smoothlite—Insulation. Insulite

Minnesota and Ontario Paper Co., Minneapolis, Minn.

Donnell & Miller, Inc., Chicago, Ill. hap-in—Dampers, Warm Air Pipe. Snap-in-Dampers, Standard Metal Fabricating Co., Omaha, Nebr.

Snaplok—Furnace Pipe. Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp., Dover, Ohio.

Snap-On-Gutter Guards. Lockhart Mfg. Corp., Detroit, Mich.

Snap-Rite-Ducts, Pipe and Fittings. Gray Metal Products, Inc., Rochester, N

Snaptite—Gutter Fittings. Berger Mfg. Div., Republic Steel Corp., Canton, Ohio.

Snip-it-Filters. C.L.B. Co., Houston, Tex.

Sno-Breze—Evaporative Coolers. Palmer Mfg. Corp., Phoenix, Ariz. Sno-fluf-Evaporative Cooler Mats. Palmer Industries, Inc., Phoenix, Ariz.

Soder-Solder. L. B. Allen Co., Inc., Chicago, Ill. Sod-R-Braze-Soldering Tourches. Chem-

etron Corp., Chicago, III.

Softite—Steel Sheets. Wheeling Steel
Corp., Wheeling, W. Va.

Softweld—Welding Rod. Lincoln Elec-

tric Co., Cleveland, O. Soilgon—Degreasing Compounds.

wart-Hall Chemical Corp., Mt. Vernon,

Sola-Flame-Oil Burners. East Coast Co., Boston (Wellesley), Mass. Solair—Baseboard Diffusers. H & N Sheet Metal Fabricating Co., Inc., Deer

Lodge, Mont. Solder Paint-Solder. Fluxolder Products Co., Detroit, Mich.

Solderprep-Flux for Steel. Neilson

Chemical Co., Detroit, Mich.

Solex—Heat Insulating Windows. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Sol-Flux—Soldering Flux. Klem Chemical Works, Dearborn, Mich. Solvex-Cleaning Compound. Chemical

Solvent Co., Birmingham, Ala. Sonite-Caulking Compounds. Smoothon Mfg. Co., Jersey City, N. J.

Sonoairduct-Non-metallic Ducts. Sonoco Products Co., Construction Products Div., Hartsville, S. C.

Sonoairduct-XP-Non-metallic Ducts. Sonoco Products Co., Construction Products Div., Hartsville, S. C.

Sonobraze-Ultrasonic Welders. Sonobond Corp., Subsidiary of Aeroprojects, Inc., West Chester, Pa.

Sonolastic—Caulking Compounds, As-

phalt Paint. L. Sonneborn Sons, Inc., New York, N. Y.

Sonosolder-Ultrasonic Welders. Sonobond Corp., Subsidiary of Aeroprojects, Inc., West Chester, Pa. Sonotrol—Roof Ventilator Curbs. Penn

Ventilator Co., Inc., Philadelphia, Pa. noweld—Ultrasonic Welders. Sono-Sonoweld-Ultrasonic bond Corp., Subsidiary of Aeroprojects, Inc., West Chester, Pa.

Soot Destroyer—Soot Removers. Sid Harvey, Inc., Valley Stream, N.Y.
Soot Master—Furnace Vacuum Cleaners. Master-Craft Industries, Inc., Garfield, N. J.

Sootracide-Soot Remover. Metropolitan Refining Co., Inc., Long Island City,

Sootspray—Soot Remover. Stewart-Hall Chemical Corp., Mt. Vernon, N. Y. Soroco—Chimney Caps and Tops. Southbridge Roofing Co., Inc., Southbridge, Mass

Soundscope-Sound Level Meters. Mine Safety Appliances Co., Pittsburgh, Pa.
Southern—Sheet Metal Screws. National
Lead Co., New York, N. Y.
Southwest Air—Unitary Air Conditioners. Speedy Mfg. & Sales Co., Amaril-

Spacesaver-Suspended Furnaces. The Payne Co., La Puente, Calif. Sparktrodes—Electrodes. Dielectric Prod-ucts Co., Inc., Jersey City, N. J. Special—Furnaces. The Williamson Co.,

Cincinnati O. Special X-Flux. Industrial Service Lab-

oratories, Milwaukee, Wis.
Speco-Soldering Flux. Pfanstiehl Labora-

tories, Inc., Waukegan, Ill.

Speed Drills—Drills. Speedway Mfg.
Co., Div. of Thor Power Tool Co.,
LaGrange Park, Ill.

Speed Grinders Grinders. Speedway Mfg. Co., Div. of Thor Power Tool LaGrange Park, Ill. Spee-D-Lok-Metal Ducts, Pipe and Fit-

tings. Superior Metal Fabricating Co., 0. Niles,

Speed Motors-Electric Motors. Speedway Mfg. Co., Div. of Thor Power
Tool Co., LaGrange Park, Ill.
Speed Notch—Power Notching Ma-

chines. Harper Metal Products, San Bruno, Calif.

Speedomax-Recorders. Leeds & Northrup Co., Philadelphia, Pa.

Speed Polishers—Polishers. Speedway Mfg. Co., Div. of Thor Power Tool Co., LaGrange Park, 111.

Speed-Rail-Pipe Fittings. Hollaender Mfg. Co., Cincinnati, O.

Speed Sanders-Sanders. Speedway Mfg. Co., Div. of Thor Power Tool Co., LaGrange Park, Ill.

Speed-Trol-Transmissions, Motors. Sterling Electric Motors, Inc., Los Angeles, Calif.

Speedy-Cals—Name Plates. North Shore Nameplate, Inc., Bayside, L.I., N. Y. Spher-Align-V-Belts. Dodge Mfg. Corp., Mishawaka, Ind.

Spic-Span—Furnace Vacuum Cleaners.
Premier Co., St. Paul, Minn.
Spin-On—Fuel Oil Filters. Wix Corp.,
Gastonia, N. C.

Spinner-Ventilators. Inland Steel Prod-

ucts Co., Milwaukee, Wis. Spintex-Insulation. Johns-Manville, New York, N. Y.

Spiratube—Flexible Duct and Non-Me-tallic Fittings. Flexible Tubing Corp., Guilford, Conn.

Split-Aire-Air Conditioning Units. Penn Boiler Div., Pebbco Industries Inc.,

Lancaster, Pa.

Spongex—Vibration Isolating Pads, Tubing Insulation, Seals for Registers. B.
F. Goodrich Co., Sponge Products Shelton, Conn.

Spot-Aire—Air Conditioning Units.
Drayer-Hanson, Div. of National-U.S.
Radiator Corp., Los Angeles, Calif.
Spraco—Spray Guns, Humidifiers, Nozzles, Air Washers, Spray Engineering

Burlington, Mass.

Spra-Rite-Nozzles. Binks Mfg. Co., Chicago, Ill.

SpraTower-Cooling Towers. The Marley Co., Kansas City, Mo. Spray-Acoustic-Insulation. Sprayo-Flake

Co., Chicago, Ill. Spray-Cote-Insulation. Sprayo-Flake

Company, Chicago, Ill. Sprayit—Paint Guns. Thomas Industries Inc., Electric Sprayit Div., Sheboygan, Wis.

Spray Pak-Paint. Chase Products, Inc., Broadview, III. Spray-Rod—Paint

Spray Guns. Eclipse Air Brush Co., Newark, N. J. Spray-Seal-Insulation, Sprayo-Flake Co.,

Chicago, Ill. Spraywelder-Metal Spray Guns. Wall

Colmonoy Corp., Detroit, Mich.
Spray Wheel—Air Washers, Evaporative Coolers. Mountain States Equipment Co., Denver, Colo.

Spread Heat—Gas Conversion Burners.

Barber Mfg. Co., Cleveland, O. Spring-Flex—Vibration Absorbers,

bration Isolating Bases and Pads. Vibration Mountings, Inc., Corona, N. Y.
Springin—Toggle Bolts. Star Expansion
Bolt Co., New York, N. Y.
Spunsteel—Pulleys. Spun Steel Corpora-

tion, Canton, Ohio. Yale &

Towne Mfg. Co., Philadelphia, Pa.
Squarehed—Aluminum Nails. Independent Nail & Packing Co., Bridgewater,

Stable-Arc-Welding Rod. Lincoln Electric Co., Cleveland, Ohio. Stainlend-Welding Rod. Arcos Corp.,

Philadelphia, Pa.
Stainless 20—Stainless Clad Sheets. Lukens Steel Co., Coatesville, Pa.
Staintrode—Welding Rod. Eutectic
Welding Alloys Corp., Flushing, N.Y.

Stainweld-Welding Rod. Lincoln Electric Co., Cleveland, O.

Stak Heat-Reclaimer-Heat Recoverer.

Stak Heat-Reclaimer—Heat Recoverer.
Heat Reclaimer Mfg. Div., Dolin Metal
Sales Corp., Brooklyn, N. Y.
Stamco—Metal Duct, Furnace Pipe, Fittings. Cincinnati Stamping & Furnace
Co., Cincinnati, Ohio.
Standard—Roof Ventilators. Burt Mfg.

Co., Akron, Ohio. Guards. Cromley's, Standard—Snow

Lewisburg, Pa. Standard-Furnace. Farris Furnace Co.,

Springfield, Ill. Standard-Furnaces. Williamson Heater

Co., Cincinnati, Ohio. Standard I.F.B.—Combustion Chambers. A. P. Green Fire Brick Co., Mexico,

Standard Speedmaster-Gas Water Heatters. Handley-Brown Co., Jackson,

Standard Stationary-Ventilators. Allen Ventilator Div., Proc Co., Rochester, Mich. Production Planning

Standforated-Grilles. Standard Stamping & Perforating Co., Chicago, Ill. Staps-Screws. Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.

Star-Hack Saw Blades. Clemson Bros., Inc., Middletown, N. Y.

Star-Oil Burners. Mortemp Corp., Seattle, Wash.

Starfire—Water Heaters. Day & Night Mfg. Co., La Puente, Calif.

Starglo-Sheet Metal Awnings. Koolvent Metal Awnings Corp. of America, Pittsburgh, Pa.

Stark-Furnaces. Hess-Snyder Co., Massillon, Ohio.

Sta-Steel-Soldering Flux. London Chemical Co., Melrose Park, Ill. Statick—Ventilators. Hirschman-Pohle Co., Inc., LeRoy, N. Y. Staxausters—Ventilators. Allen Venti-

lator Div., Production Planning Co., Rochester, Mich.

Staynew-Air Filters. Dollinger Corp., Rochester, N. Y. Stay-Put-Duct and Pipe Anchors. Southern Mist Products Co., Evanston,

ing Alloys Co., Inc., White Plains, N. Y. SteelArc-

Steel Cable-V-Belts. Goodyear Tire & Rubber Co., Inc., Akron, Ohio.

Steelco-Gutter Guards. Steele Mfg. Co., Ashland, Ky.

Steeldek-Metal Roof Decking. Penn Metal Co., Inc., Boston, Mass.

Steelfab-Squaring Shears & Presses Highland Engineering Co., Santa Monica, Calif.

Coils. Steelfin-Heating New York Blower Co., Chicago, Ill. Steelflex-Flexible Hose and Fittings.

Universal Metal Hose Co., Chicago, Ill. Steeltectic-Welding Rod. Eutectic Welding Alloys Corp., Flushing, N. Y. Steel-Tex—Caulking Compound. Travaco

Laboratories, East Boston, Mass. Steelweld-Sheet Metal Working Machinery. Cleveland Crane & Engineering Co., Wickliffe, Ohio.

Steep-Slope-Fireplace Draft Dampers Bennett-Ireland, Inc., Norwich, N. Y. Sterilamp-Germicidal Lamps. Westing-Electric Corp., Lamp Div., house

Bloomfield, N. J.
Sterling Beader—Beading Robertson Machine and Foundry, Buffalo, N. Y.

Stic-Tite-Adhesives, Cement. Refractory & Insulation Corp., New York, N. Y. Elgen Stik-Tite-Insulation Adhesives. Mfg. Corp., Long Island City, N. Y.

Stok-A-Timer-Stoker Controls. Mercoid Corp., Chicago, Ill. Stoker-Disk-Baffles. Insulation & Re-

fractories Co., Webster, N. Y. Stokerelay-Relays. Minneapolis-Honey-

well Regulator Co., Minneapolis, Minn. Stokol-Stokers. Eddy Stoker Corp., Wheeling, Ill. Stonewell-Asbestos-Cement Board. Rub-

eroid Co., New York, N. Y.
Stop-It—Waterproofing. Tamms Indus-

tries Co., Chicago, Ill. Stor-Heat—Heat Storage Units for Warm Air Furnaces. A. M. Hexdall Co., Morris, Ill.

Stormguard-Gutter Accessories. W. H. Maze Co., Peru, Ill.

Storm-Pruf-Oil Burner Vent Caps. Bearlee Products Co., Green Bay, Wis.

Stormseal-Sheet Metal Roofing. American Steel & Wire Div., United States Steel Corp., Cleveland, Ohio; United States Steel Corp., Pittsburgh, Pa. Stormtight-Roof Cement and Paint. L

Sonneborn Sons, Inc., New York. Stowaway-Suspended Furnaces. Lennox Industries Inc., Marshalltown, Iowa.

Strato Cap-Roof Ventilators. Ryniker Steel Products Co., Billings, Mont. Streamjet-Water Nozzles. Spraying Sys-

tems Co., Bellwood, Ill. Streamline—Ridge Ventilators. H. H. Robertson Co., Pittsburgh, Pa.

Streamline-Copper Tubing and Fittings, Brushes for Cleaning Copper Fittings, Dehydrators, Heat Exchangers, Flux, Solder, Welding Rod, Refrigerant Charging Hose, Valves. Mueller Brass Co., Port Huron, Mich.

Streamlined—Combustion Chambers. P. Green Fire Brick Co., Mexico, Mo. Streamliner—Directional Flow Registers.

Auer Register Co., Cleveland, Ohio. Strongbarn—Corrugated Steel Roofing. Granite City Steel Co., Granite City, III.

Stronghold-Nails. Independent Nail & Packing Co., Bridgewater, Mass.
Stubby—Floor Furnace. Holly-General

Co., Pasadena, Calif. Stubby—Furnace Vacuum Cleaners. Empire Chemical Products Co., Newark,

Stud Driver-Stud Guns. Remington Arms Co., Inc., Bridgeport, Conn. Stud-Pak—Insulation. United States Min-

eral Wool Co., Stanhope, N. J. Stylist—Furnaces. Perfection Industries, Div. of Hupp Corp., Cleveland,

Stypolight-Plastic Panels. H. H. Robertson Co., Pittsburgh, Pa.

StyroFoam—Building Insulation. Dow Chemical Co., Midland, Mich. Styx—Roof Cement. Coopers Creek Chemical Corp., West Conshohocken,

Submatic-Electric Motors. Franklin Electric Co., Inc., Bluffton, Ind. Suburban-Furnaces. Samuel Stamping &

Enameling Co., Chattanooga, Tenn. Sun-Glow—Furnaces. Mortemp Seattle, Wash.

Sun-Lite Aire—Air Sterilizers and Steril-izing Lamps for Duct Installation. Sampson Scientific Corp., Chicago, Ill. Sunnyaire—Gas Unit Heaters. Crane Co., Chicago, Ill.

Sunnyland—Blower-Filter Units, Duct Heaters, Furnaces, Air Conditioning Units. Crane Co., Chicago, Ill. Super—Furnaces, The Williamson Co.,

Cincinnati, O. Super—Hangers and Fittings. Royal-Apex Mfg. Co., Inc., Brooklyn, N. Y. Super—Heaters. Evans Products Co., Detroit, Mich.

Super-Plastic Furnace Lining. Walsh Refractories Corp., St. Louis, Mo. Super—Furnace Vacuum Cleaners. Em-pire Chemical Products Co., Newark, N. J.

Superair—Air Conditioning Furnaces. St. Louis Furnace Mfg. Co., St. Louis, Mo. Super Cycle—Electric Tools. Chicago Pneumatic Tool Co., New York, N. Y.

Super Dry Eye-Refrigerant Dehydrators. Ansul Chemical Co., Refrigeration Div., Marinette, Wis. Super Ebontex—Waterproofing. Philip

Carey Mfg. Co., Lockland, Cincinnati Super Filter Coat-Filter Coating Oil. Research Products Corp., Madison, Wis.

Superfin—Furnaces and Unit Heaters. American Fdry. & Furnace Co., Bloomington, Ill.

Super-Fine-Insulation. Johns-Manville Fiber Glass Inc., Toledo, O.

Super Finish Stic-Tite-Insulating Cement. Refractory & Insulation Corp., New York, N. Y.

SuperFirma—Gravity Roof Ventilators. Hirschman-Pohle Co., Inc., LeRoy,

Superflame-Gas Burners, and Furnaces. Queen Products Div., King-Seeley Corp., Albert Lea, Minn.

Super-Flo-Fans. John Zink Co., Tulsa, Okla.

Super-Flo-Refrigerant Dehydrators. Remco, Inc., Zelienople, Pa. Superflo-Furnaces. The Payne Co., La Puente, Calif.

Super Hybond-Refractories. A. P. Green Fire Brick Co., Mexico, Mo. Blue Ridge Talc

Superior—Enamels. E. Co., Inc., Henry, Va.

Superior—Blowers. American Foundry & Furnace Co., Bloomington, Ill. Superior—Storage Water Heaters. Bas-tian-Morley, Inc., LaPorte, Ind. Superior-Water Heaters. Crane Co., Chicago, Ill.

Super-Jet-Soldering Torches. Fusion Engineering, Cleveland, Ohio. Supermetic-Compressors. Servel, Inc.,

Evansville, Ind Super Plastic-Refractories. A. P. Green

Fire Brick Co., Mexico, Mo. Super-Por-Seal-Waterproofing. Truscon Laboratories, Detroit, Mich.

Super Powerhouse-Insulating Cement. Baldwin-Hill Co., Trenton, N. J.

Super Red Streak—Furnace Cleaners. Na-tional Super Service Co., Toledo, Super Saw--Power Saws and Saw Blades.

RCS Tool Corp., Bloomington, Ill.

Super-Set-Gas Burners. Downing Steel Products Co., Kettering, O.

Super Sioux-Ventilators. Sioux Steel Co., Sioux Falls, S. D.

Super 66-Insulation. Eagle-Picher Co., Cincinnati, Ohio.

Super Slugger-Electric Power Hammers. Noble & Stanton, Inc., Bedford, Ohio. Super Speed-Mouldings and Trim. Ap-

pleton Supply Co., Inc., Appleton, Wis. Super Suction—Furnace Vacuum Clean-National Super Service Co., Toledo, O.

Supertemp-Insulation. Eagle-Picher Co., Cincinnati, Ohio.

SuperTwist-Dust Recovery Bags. Master-Craft Industries, Inc., Garfield, N. J.

Super X-Sheets. Western Brass Mills Div., Olin Mathieson Chemical Corp., East Alton, Ill.

Supreme-Combustion Chambers. Sandberg Mfg. Co., Portland, Ore.

Supreme-Enamels. Blue Ridge Talc Co., Inc., Henry, Va.

Supreme-Furnaces. Agricola Furnace Co., Inc., Gadsden, Ala. Supreme-Electric Hand Saws, Price &

Rutzebeck, Hayward, Calif. Supreme-Furnaces. McPherson Furnace

& Supply Co., Portland, Ore.
Supreme—Gas Water Heaters.
General Co., Pasadena, Calif.
Sure-Draft—Heating Plant Holly-

Failure Alarms. Acme Equipment, Inc., Altoona, Pa.

Sure Draft-Chimney Tops. H. C. Little Burner Co., Inc., San Rafael, Calif. Suredrane—Roofing. Reeves Steel & Mig. Co., Div. of Empire-Reeves Steel Corp.,

Dover, O. Surefit—Ducts, Fittings, Dampers, Plen-um Chambers, Furnace and Smoke um Chambers, Furnace and Smoke Pipe. Henry Furnace Co., Medina,

Ohio. Surefit-Plenum Chambers, Ducts, Duct Fittings, Dampers, Pipe and Fittings. The C. A. Olsen Mfg. Co., Elyria, O. Sure-Stik-Bonding Adhesives. Insul-

Coustic Corp., Maspeth, N. Y.

Sureweld—Welding Rod, V Chemetron Corp., Chicago, Ill. Swanee—Galvanized Shingles. Welders.

Mig. Div., Republic Steel Corp., Canton, Ohio.

-Solder and Flux. Hercules Chem-Swifical Co., Inc., New York, N. Y.

Swish-Cleaning and Degreasing Compounds. Montgomery Chemical Co., Jenkintown, Pa.

Sylphon-Thermostats. Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville, Tenn.

Synchro-Valve-Gas Pressure Regulating Valves. Bristol Co., Waterbury, Conn.

# T

TFC-Welding Rod. Tennessee Fabricat-ing Co., Memphis, Tenn.

TMC—Refrigeration Dives Tube Marie

-Refrigeration Driers. Tube Mani-

fold Corp., North Tonawanda, N. Y. TO Silencer—Sound Absorbers, Sound and Volume Control Mixing Units for Double Duct High Velocity Air Conditioning Systems. Elof Hansson, Inc., Acoustical Div., New York, N. Y.

TWC Weather Control—Controls. Tork
Time Controls Inc., Mt. Vernon, N. Y.
Table-Top—Water Heaters. Handley-Brown Co., Jackson, Mich.

Tabletop-Water Heaters. American Radiator & Standard Sanitary Corp., Plumbing and Heating Div., New York, N. Y. able Top—Water Heaters. National

Table Steel Construction Co., Los Angeles, Calif.

Tab-Lock-Blower Wheels. Torrington Mfg. Co., Torrington, Conn.

-Controls, Hygrometers, Recorders, Psychrometers, Thermometers. Weston Electrical Instrument Corp., Newark,

Tamanite-Metal Conditioner, Tamms In-

dustries Co., Chicago, Ill.

Tamco—Duct Fittings, Pipe and Fittings,
Ventilators. Tiffin Art Metal Co., Tiffin, Ohio.

Tam-Putty-Caulking Compound, Tamms Industries Co., Chicago, Ill. Tamtex—Paint. Tamms Industries Co.,

Chicago, Ill. Tank No-Corrode-Fuel Oil Tank Solvents. J. A. Sexauer Mfg. Co., Inc., New York, N. Y. Tank-O-Meter-Gauges. Uehling Instru-

ment Co., Paterson, N. J. Taperlock-Fan & Motor Pulleys. Dodge

Mfg. Corp., Mishawaka, Ind. Tapgun-Portable Electric Tapper. Black & Decker Mfg. Co., Towson, Md. Teejet-Water Nozzles. Spraying Sys-

tems Co., Bellwood, Ill.

Tee Joint—Duct and Duct Accessories.

Inland Steel Products Co., Milwaukee,

Teletrol-Controls. Airgard Mfg. Co.,

Chicago, Ill. Tel-Tru-Psychrometers, Thermometers, Smoke Testers, Air Testing Instru-ments. E. Vernon Hill & Co., Lake

Geneva, Wis.
Temlock—Insulation. Armstrong Cork Co., Lancaster, Pa.

Tempered-Aire-Furnaces. Engineering Industries Co., Ltd., Toronto, Ont., Canada.

Tempmaster-Thermostats. Crown Controls Co., Inc., New Bremen, Ohio. Tempo-Brazing Torches. American Products Corp., Chicago, Ill.

Tempotherm-Controls. General Controls Co., Glendale, Calif.

Tempoint-Thermometer. Bachararch Industrial Instrument Co., Pittsburgh,

Temp-R-Izer—Gas Burners, Laharco Industries Inc., Minneapolis, Minn. Temprobe—Indicating Thermometers. Victory Engineering Corp., Union, N. I.

Tempscribe—Portable Temperature Re-corder. Bacharach Industrial Instru-

Inc., Lockport, N. Y. Tem-puf-Insulation.

Tenneseal-Sheet Metal Roofing. Tennessee Coal & Iron Div., U. S. Steel Corp., Fairfield, Ala.
Tensilend—Welding Rod. Arcos Corp.,

Philadelphia, Pa. Tensulate-Insulation, Tennessee Prod-Chemical Corp., Nashville, ucts & Tenn.

Tesamoll-Filter Frame Sealing Gaskets. United Mineral & Chemical Corp., New York, N. Y.

Tetler-Degreasing Compounds. Lester Laboratories, Inc., Atlanta, Ga. Texan-Water Heaters. Hotstream Heat-

er Co., Cleveland, Ohio. Thawzone-Dehydrators. Highside Chemicals Inc., Clifton, N. J.

Therma-Cals-Name Plates. North Shore Nameplate Inc., Bayside, L. I., N. Y.
Thermaflex—Flexible Duct, Non-metallic
Duct Fittings. Flexible Tubing Corp.,

Guilford, Conn.
Thermalite—Paint. Tropical Paint Co.,

Cleveland, Ohio. Thermaload-Electrical Relays. Monitor Controller, Rockland, Mass.

Therma-Mark-Name Plates. North Shore Nameplate Inc., Bayside, L. I., N. Y

Therm-A-Neered-Controls. Westinghouse Electric Corp., Pittsburgh, Pa. hermaster—Furnaces. Thatcher Furnace Co., Garwood, N. J. Thermaster-Furnaces.

Thermidaire-Furnaces. E. K. Campbell Co., Kansas City, Mo. Ther-Mist-Nozzles. TOT Towers Co.,

Houston, Tex. Thermo-Furnaces. American Furnace

Co., St. Louis, Mo. Thermoanemometer-Anemometer. Will-

son Products, Inc., Reading, Pa. Thermo-Base—Baseboard Diffusers. Gerwin Industries, Inc., Thermo-Base Div., Michigan City, Ind.

Thermo-Bloc-Edge Insulation. National Gypsum Co., Buffalo, N. Y. Thermobloc—Direct Fired Heaters. The

Wanson Corp., Lewistown, Pa. Thermo-Bord—Non-Metallic S1 Sheets. Philip Carey Mfg. Co., Lockland, Cincinnati. O.

Thermo-Drip-Humidifier. Humidifier Co., Cedar Falls, Iowa. Thermoflow—Roof Ventilators. Western

Engineering & Mfg. Co., Venice, Calif.
Thermo-Humidigraph—Hygrometers
Bristol Co., Waterbury, Conn.
Thermoil-Granodine—Coating Chemical
for Steel or Iron Surfaces. American Chemical Paint Co., Ambler, Pa.

Thermo Lo-Brazing Flux, Farrelloy Co., Philadelphia, Pa. Thermo-Pace-Furnaces and

Thermo-Products, Inc., North Judson,

Thermopane—Insulated Window Glass. Libbey-Owens-Ford Glass Co., Toledo, General Con-

Thermopilot-Controls. Getrols Co., Glendale, Calif. Thermo-Pride-Unitary Air Conditioners.

Thermo-Products, Inc., North Judson, Ind.

Thermoramic-Controls. General Controls Co., Glendale, Calif. Thermoswitch-Controls. Fenwal, Inc.,

Ashland, Mass.
Thermotank—Sound and Volume Control Mixing Units. Air Devices, Inc., New

Thermotex B-Insulating Cement, Waterproofing. Philip land, Cincinnati, O. Durt Dampers. Damp

Thermo-Vent-Duct Vent Co., Bettendorf, Ia.
Thermowall—Baseboard Diffusers. Ryniker Steel Products Co., Billings,

Mont. Thinline-Air Conditioning Units. General Electric Co., Major Appliance Div., Room Air Conditioner Dept.,

Louisville, Ky. Thin-Man—Registers. Register & Grille Mfg. Co., Inc., Brooklyn, N. Y.

hird-Way—Air Conditioning Units. Remington Air Conditioning Div., Remington Corp., Auburn, N. Y. Third-Way-Air Remington Corp., Auburn, N. Thirs-Tee-Humidifier Plates. Viking Air

Products Div., National-U.S. Radiator Corp., Cleveland, O. Thomas A. Edison-Dehumidifiers, Uni-

tary Air Conditioners. Coolerator Div., McGraw-Edison Co., Albion, Mich. Thorobred-V Belts. Dayton Industrial

Products Co., Melrose Park, Ill. Three-Phase-Welders, Sciaky Chicago, Ill.

370 Special-Paints. Thompson & Co., Oakmont, Pa.

Thrifti-Tower—Cooling Towers. Marlo Coil Co., St. Louis, Mo. Thru-The-Wall-Furnaces.

Chattanooga Royal Co., Chattanooga, Tenn. Thru-Vent-Wall Furnaces Commonwealth Co., Alhambra, Calif.

Thulman-Metal Fireplaces, Prefabricated Chimneys. Chimney Sales Corp., Washington, D. C.

Thunder-Jet-Fans. Belco Industries. Inc., St. Louis, Mo.

Thunder-Twist-Carbide Tipped Bits, Chuck Wrenches. New England Carbide Tool Co., Inc., Medford, Mass. Ti-Co-Sheets and Steel Roofing. Inland

Steel Co., Chicago, Ill. Time-O-Switch-Time Switches. neapolis-Honeywell Regulator

Minneapolis, Minn. Timerelay-Relays. Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. Tin-Ezy-Flux. Johnson Mfg. Co., Inc., Mount Vernon, Ia.

Tinezy-Solder. F. Philadelphia, Pa. Farrelloy Co., Inc.,

Tinner's Red-Paint. Pittsburgh Plate Glass Co., Pittsburgh, Pa. Tinol-Soldering Flux. American Solder & Flux Co., Philadelphia, Pa.

Tin Weld-Solder. Eutectic Welding Alloys Corp., Flushing, N. Y.

Titekote Paint Seal-Steel Sheets. Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp., Dover, O.

Tite-Lite—Caulking Compound. Trus-con Laboratories, Detroit, Mich.

Titelock—Duct and Duct Accessories, Gutter Accessories, Furnace Pipe and Fittings. Inland Steel Products Co., Milwaukee, Wis.

Titeseal-Furnace Cement. Radiator Specialty Co., Charlotte, N. C. Toastmaster—Electric Water

Heaters. McGraw-Edison Co., Clark Div., Chicago, Ill.

Tobin Bronze-Plates and Welding Rod. American Brass Co., New York, N. Y. Tocoseal-Roof Cement. Tropical Paint Co., Cleveland, Ohio.

Tool Line-Grinders, Brown-Brockmeyer Co., Inc., Dayton, O.

Toolmaster—Sheet Metal Working Ma-chines. Fidelity Tool Supply, Inc.,

Camden, N. J.
Topseal-Sheet Metal Fastenings. Fabricated Products Co., West Newton,

Torchweld-Torches. Chemetron Corp., Chicago, Ill.

Tork-Grip—Tube Benders. Parker Fit-tings & Hose Div., Parker-Hannifin Corp., Cleveland, O. Torkmaster—Switches. Tork Time Con-

trols Inc., Mt. Vernon, N. Y.
Tornado—Furnace Vacuum Cleaners.
Breuer Electric Mfg. Co., Chicago, Ill.
Torpedo—Refrigerant Dehydrators, Driers and Strainers for Refrigeration Systems. Imperial Brass Mfg. Co., Chicago, Ill.

Torrid Zone-Furnaces. Lennox Industries, Inc., Marshalltown, Iowa Totalume-Aluminum Paint. Wilbur &

Williams Co., Norwood, Mass. Totrust-Paints, Enamels. Williams Co., Norwood, Mass. Wilbur &

own & Country—Air Conditioning Units, Furnaces. Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill.

-Leak Detectors. Highside Chemicals Inc., Clifton, N. J.

Tramrail-Hoists, Monorails. Cleveland Crane & Engineering Co., Wickliffe, Ohio.

ransite—Asbestos Duct, Asbestos Sheet. Johns-Manville, New York, N. Y. Transite-Transitop-Non-Metallic Sheets. Johns-

Manville, New York, N. Y. Transparent-CO<sub>1</sub> Analyzers. F. W. Dwyer Mfg. Co., Michigan City, Ind. Trentweld-Steel Tubing. Crucible Steel Co. of America, Pittsburgh, Pa.

Triclene-Metal Cleaner. E. I. du Pont de Nemours & Co., Inc., Wilmington,

Trico-Draft Diverters, Furnaces, Duct and Duct Accessories, Furnace Pipe and Fittings. Tri-State Heating Supply Inc., Fort Wayne, Ind.

Tri-Flex-Grilles, Registers. Tuttle & Bailey Div. of Allied Thermal Corp., New Britain, Conn.

Tri-Flux-Electric Motors. Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso, Mich.

Tri-Flux-Soldering Flux. Wolfe-Kote Co., Sheboygan, Wis.

Trim-Boy-Furnaces. Coleman Co., Inc., Wichita, Kans.

Trimedge-Moldings and Trim. William L. Bonnell Co., Inc., Newman, Ga. Trimline-Furnaces. Perfection Industries, Div. of Hupp Corp., Cleveland,

Trim-To-Size-Filters. Research Products Corp., Madison, Wis.

Tripl-Aire—Registers and Grilles. Hart & Cooley Mfg. Co., Holland, Mich. Triple A-Paints. Quigley Co., Inc.,

New York, N. Y.

Triple-Lok—Copper Tube Fittings.
Parker Fittings & Hose Div., Parker-Hannifin Corp., Cleveland, Ohio. Tripl-Lock-Roofing Nails. The Deniston Co., Chicago, Ill.

Trisolvadiene-Metal Cleaners. Colonial Alloys Co., Philadelphia, Pa.

Trona—Refrigerants. American Potash & Chemical Corp., Los Angeles, Calif. Tropicalk—Caulking Compounds. Tropical Paint Co., Cleveland, Ohio.
Tropic Breeze—Furnaces. Dalzen Mfg.
Co., St. Clair, Mich.

True-Spot-Smoke Testers. Bacharach In-dustrial Instrument Co., Pittsburgh. Truflex-V Belts. Gates Rubber Co., Den-

Truflex-Solder. Metals & Controls, Div. of Texas Instruments Inc., Attleboro Mass

Truliradiant-Gas Burners, Gold Top Heating, Inc., Butte, Mont.
Trulitrol—Controls. Sullivan Valve &

Engineering Co., Butte, Mont.
Trumpf—Nibbling Machines. Cosa

Corp., New York, N. Y.
Trunkline—Ducts and Duct Fittings.
Norwalk Air Conditioning Corp.,
South Norwalk, Conn. Tru-Set-Insulation and Sheet Metal

Fastenings. Ramset Fastening System, Winchester-Western Div., Olin Mathie-

Winchester-Western Div., Olin Mathieson Chemical Corp., Cleveland, O.
Truspac—Aluminum Strips. Scovill Mfg.
Co., Waterbury, Conn.
Trussteel—Damper Clips. U. S. Register
Co., Battle Creek, Mich.
Tub-Caulk—Caulking Compounds. Mira-

cle Adhesives Corp., Bellmore, L. I.,

Tube-O-Flux-Flux. American Products Corp., Chicago, Ill. Tuff-Bond-Adhesives Goodloe

Tuff-Bond—Adhesives. Goodide a. Moore, Inc., Danville, Ill.
Tuf-Flex—Hack Saw Blades. Millers
Falls Co., Greenfield, Mass.
Tuff-Weld—Insulation Fastenings. Good-

Tuff-Weld—Insulation Fastenings. Goodloe E. Moore, Inc., Danville, Ill.
Tumb-L-Tire—Toggle Bolts. U. S. Expansion Bolt Co., York, Pa.
Turbine—Ventilators. Penn Ventilator
Co., Inc., Philadelphia, Pa.
Turbine Rotary—Ventilators. Western
Boginsering. Manufacturing Co.

Engineering & Manufacturing Co., Los Angeles, Calif. urbo—Air Washers. Bayley Blower Company, Milwaukee, Wis. urbo-Base—Ventilators. Uno Ventilator Turbo-Air Turbo-Base Co., Malden, Mass.

Turbo-Heat-Gas Burners. Barber Mfg. Co., Cleveland, O.
Turbo-Vac—Furnace Vacuum Cleaners.

Kent Co., Inc., Rome, N. Y.
Turbovane—Blowers. Westinghouse Electric Corp., Sturtevant Div., Bos-

ton, Mass. Turner-Torches. American Products

Corp., Chicago, Ill. Twin-Aire—Gas Burners. Roberts-G don Appliance Co., Buffalo, N. Y. Roberts-Gor-

-Insulated Glass Window Pan-Twindowels. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

Twin-Fyr-Oil Burner. Breeze Corps., Inc., Newark, N. J.

Twinsulation—Building Insulation. National. Gypsum Co., Buffalo, N. Y.

Twist-Rezist-Saw Blades. Independent Blade Co., Div. Westlund Industries, East Haven, Conn.

Two-Tank-T-Fuel Filters. Robert Bar-clay, Inc., Chicago, Ill.

Tygon-Metal Protecting Paint. United States Stoneware Co., New York, N. Y. Tyl-Lyke—Steel Roofing and Siding. Continental Steel Corp., Kokomo, Ind.

Tymotherm-Thermostats. Tork Cloc Company, Inc., Mount Vernon, N. Y. Ty-Ton-Expansion Anchors and Expansion Bolts. U. S. Expansion Bolt Co.,

York, Pa.

U.D.D.—Tubing. United Wire & Supply Corp., Providence, R. I. U-G-L.—Furnace Cement. United Gilson-ite Laboratories, Scranton, Pa.

UMCO-Furnaces. Union Mfg. Co., Boyertown, Pa.

U.S.—Oil Conversion Burners and Burner Parts. Carlin Co., Wethersfield, Conn.

S.-Carlin-Oil Conversion Burners and Burner Parts. Carlin Co., Wethers-U.S.-Carlin-Oil field, Conn.

Cement, Roof USG-Roof Roofing Felt, Built-up Roofing, Louvers, Paint. United States Gypsum Co., Chicago, Ill.

USRC-Registers, Damper Regulators. United States Register Co., Battle Creek, Mich.

-Steel Products. National Tube Co., Pittsburgh, Pa.; Tennessee Coal and Iron Div., Fairfield, Ala.; United States

Steel Corp., Pittsburgh, Pa. Com-Refrigerants. Union Carbide Chemicals Co., Div. of Union Carbide Corp., New York, N. Y. Ultra-Air—Furnaces. Southern Heater

Corp., Compton, Calif. Southern Heater

Ultra-Flow-Furnaces. Corp., Compton, Calif.

Ultralite-Duct and Furnace Insulation. Gustin-Bacon Mfg. Co., Kansas City, Mo.

Ultra-Matic-Insulation Blowing chines. Universal Insulating Machine Co., Winter Haven, Fla.

Uni-Cast-Electric Motors. Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso, Mich.

Unichrome-Sheet Metal Paint. Metal & Thermit Corp., Rahway, N. J.
Uniclosed—Motors. U. S. Electrical Mo-

Uniclosed—Motors. U. S. Electrics, tors, Inc., Los Angeles, Calif.
Unicoil—Air Conditioning Units. Clarage Fan Co., Kalamazoo, Mich.
Condensers, Kramer Trenton

Co., Trenton, N. J. Uni-Core-Solder. Alpha Metals, Inc., Jersey City, N. J.

Uni-Crest-Insulation. United Cork Cos., Kearney, N. J.

Unifil-Insulation. Robinson Insulation Co., Great Falls, Mont.

Unifilter-Fuel Oil Filter Filters, Inc., Novi, Mich. Filters. General

Uni-fit-Furnace Pipe and Fittings. Armstrong Fittings Co., Des Moines, Iowa. Uni-Flo-Sound and Volume Control Mixing Units, Grilles, Registers & Air Diffusers. Barber-Colman Co., Rockford, III.

Uniflow-Furnaces. Williams Furnace Co., Buena Park, Calif. Unimatic-Welding Rod. Eutectic Weld-

ing Alloys Corp., Flushing, N. Y. Unimount—Condensate Pumps. March Mfg. Co., Skokie, III.

Uninotch—Sheet Metal Working Ma-chines. Punch Products Corp., Niagara Falls, N. Y.

Union-Incinerators. Syrall Mfg. Co., Syracuse, N. Y. Unipunch—Press Brake Dies, Punch Dies, Bench Punches. Press

Punch Products Corp., Niagara Falls, N. Y. Uni-Resonator—Sound Absorbers, Sound and Volume Control Mixing Units for Sound Double Duct High Velocity Air Conditioning Systems. Elof Hansson, Inc., Acoustical Div., New York, N. Y. Uniseal—Electric Motors. Franklin Elec-tric Co., Inc., Bluffton, Ind.

Unishear-Portable Electric Shears. Stanley Electric Tool Div., Stanley Works, New Britain, Conn.

Uni-Silencer-Sound Absorbers. and Volume Control Mixing Units for Double Duct High Velocity Air Conditioning Systems. Elof Hansson, Inc., Acoustical Div., New York, N. Y.

Unisorb-Bases and Pads. Felters Co., Boston, Mass.

Unitaire-Air Conditioning Units. West-

Unitaire—Air Conditioning Units. Westinghouse Electric Corp., Air Conditioning Div., Staunton, Va.
Unitaire—Gas Furnaces. Hammel Radiator Eng. Co., Los Angeles, Calif. Unitherm—Air Conditioning Units. Clarage Fan Co., Kalamazoo, Mich. UniTrane—Air Conditioning Units. The

Trane Co., LaCrosse, Wis. Pilot Unitrol-Controls, Safety Robertshaw-Fulton Controls

Valves. Roberts. Co., Richmond, Va. Unitrol-Water Thermostats. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach, Calif. Universal-Angle Benders. Hossfeld Mfg. Co., Winona, Minn.

Universal-Waterproofing. Philip Carey Mfg. Co., Lockland, Cincinnati, O. Universal—Evaporative Cooler Recirculating Pumps.Wright Mfg. Co., Phoenix. Ariz.

Univers-L-Mount-Condensate Pumps. March Mfg. Co., Skokie, Ill. usAIRco-Air Conditioning Units, Blowers and Blower-Filter Units, Coils, Grilles, and Blower Wheels. United

States Air Conditioning Corp., Delaware, O. U-Set-Snips and Shears, W. H. Comp-

ton Shear Co., Newark, N. J. Utilaire—Furnaces. Burnham Corp., Warm Air & Cooling Div., Belle Ver-

Util-i-Torch-Soldering Torches. Turner

Corp., Sycamore, Ill. Utility-Fan Ventilator. Arex Co., Chicago, III.

U-Trim-It-Filters. Owens-Corning Fiberglas Corp., New York, N. Y

U Tube-Water Heaters. Handley Brown Co., Jackson, Mich.

V.B .- Building Insulation. Barrett Div., Allied Chemical & Die Corp., New York, N.Y.

VP-Ex-Roof Ventilators. New York Blower Co., Chicago, Ill.

V & S Drive-Variable Speed Transmissions. Reliance Electric & Engi-

neering Co., Cleveland, O.

V & S Jr.—Variable Speed Transmissions. Reliance Electric & Engineering Co., Cleveland, O.

Vacu-Flo-Steel Tubing. H-P Products Inc., Louisville, O.

Valcalox—Damper Regulators. N Regulator Co., Cleveland, Ohio. Young Valdura-Paint. American-Marietta Co.,

Chicago, Ill. Valley Forge-Furnace Cement. Baldwin-Ehret-Hill, Inc., Trenton, N. J.

Valvent-Ventilators. Swartwout Fabricators, Inc., Kokomo, Ind.

Valuaire-Diffusers. Auer Register Co., Cleveland, O.

Vanco-Flashing, Skylights and Venti-lators. E. Van Noorden Co., Boston, Mass. Vanco Domelites-Skylights. E. Van

Noorden Co., Boston, Mass. Van-Cor—Plastic Ducts, Corrosion Resistant Hoods, Sheets, Tubing, Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works Co., Cleveland, O.

Vane Rail—Vane Rail for Ducts. Duro-Dyne Corp., Farmingdale, N. Y.

Vapco-Cleaning Compounds. Garman Co., Inc., St. Louis, Mo.

Vapoglas-Evaporative Humidifiers. Humidifier Plates. Skuttle Mfg. Co., Milford, Mich.

Vapor-Champ-Vapor Barriers. Ludlow Papers, Inc., Needham Heights, Mass. Vaporene—Rust Preventive Chemicals, Water Conditioning Compound. Met-ropolitan Refining Co., Inc., Long Is-

land City, N. Y. Vaporite-Humidifiers. Automatic Humidifier Co., Cedar Falls, Iowa. Vapor-Oil-Burners and Furnaces. Metro

Metal Mfg. Co., Holt, Mich. Vaporseal—Vapor Barriers. Ludlow Papers, Inc., Needham Heights, Mass. Vaporstop—Vapor Barriers. American Sisalkraft Corp., Attleboro, Mass.

Vapsol—Degreasing Compounds. Lester Laboratories, Inc., Atlanta, Ga. Varidrive—Motors, Transmissions. U. S. Electrical Motors, Inc., Los Angeles, Calif.

Vaultmaster—Air Conditioning Units.
Walter Haertel Co., Minneapolis, Minn.

Veco-CO, Analyzers. Victory Engineer-

ing Corp., Union, N. J.
Vecto-Ray—Electric Heaters. Swan Mfg.
Co., Vancouver, Wash.
Veelos—V-Belts. Manheim Mfg. & Belt-

ing Co., Manheim, Pa. Velometer—Air Velocity Meters. Illinois Testing Laboratories, Inc., Chicago.

Ventalarm Gauge—Fuel Tank Signal Gauge. Scully Signal Co., Melrose,

Ventalarm Signal-Fuel Oil Tank Gages. Scully Signal Co., Melrose, Mass. Venthestos—Flexible Duct Connections. Ventfabrics, Inc., Chicago, III. Ventco—Fan Blades. Phil Rich Fan Mfg.

Co., Houston, Tex.

Co., Houston, Ventilators. Wasco Products, Inc., Cambridge, Mass. Ventfabrics, Inc., Chicago, Ill.

Ventglas—Flexible Duct Connections. Ventfabrics, Inc., Chicago, Ill. Vent-Grab-Vent Hanger. Lane Sheet Metal, Minot, N. D.

Ventiduct-Adjustable Joints for Ducts. Aeroquip Corp., Los Angeles, Calif.
Ventlok—Access Doors and Duct Fitting Hardware. Ventifabrics, Inc.,

Chicago, Ill. Vent-O-Lite-Skylights. Vent-O-Lite Co.,

Chicago, III. Ventura-Fans, Ventilators. American-Standard Industrial Div., Detroit,

Mich Venturette-Roof Ventilators. Uno Ven-

tilator Co., Malden, Mass. Venturi-Flo-Air Diffusers. Barber-Colman Co., Rockford, Ill.

man Co., Rockford, III.
Venturi-Top—Roof Ventilators, Chimney
Caps and Tops, Vent Caps. Walker
Mfg. & Sales Corp., St. Joseph, Mo.
Ventvinyl—Flexible Duct Connections.
Ventfabrics, Inc., Chicago, III.
Vent-X-It—Roof Ventilators. Octagon
Ventilator Co., Chicago, III.
Ventilator Co., Chicago, III.
Ventilator Lockpition.

Vermiculite-Insulation. International

Vermiculite Co., Girard, Ill. Vernois—Furnace Repair Parts. Mt. Vernon Furnace and Mfg. Co., Mt. Vernon, Ill.

Vernon-Furnaces. Burnham Corp., Warm Air & Cooling Div., Belle Vernon, Pa.

Versat-all-Furnaces. Peerless Corp., Indianapolis, Ind.

Versatube—Capillary Tubing for Refrig-erants. Wolverine Tube Co., Div. of Calumet & Hecla, Inc., Allen Park,

Vertex—Caulking Compounds, Water-proofing, Paint. J. C. Whitlam Mfg. Co., Wadsworth, O.

Vibra-Cork-Vibration Isolating Bases. Korfund Co., Inc., Long Island City.

Vibraglass-Vibration Isolating Bases and Pads. Johns-Manville Fiber Glass Inc., Toledo, O.

Vibra Grate-Stokers. American Engi-

vibra Grate—Stokers. American Engineering Co., Philadelphia, Pa.
Vibra-stop—Flexible Duct Connections.
Grant Wilson, Inc., Chicago, Ill.
Vibrex—Vibration Isolating Equipment.
General Tire & Rubber Co., Industrial

Products Div., Wabash, Ind.
Vibro-Hangers.—Vibration Isolators.
Korfund Co., Long Island City, N. Y.
Vibro-Isolator—Vibration Isolating
Bases. Korfund Co., Inc., Long Island City, N. Y.

Victor—Blower-Filter Units, Furnaces, Oil Burners, Stokers. Hall-Neal Furnace Co., Indianapolis, Ind. Victor—Water Heaters. Cleveland Heater

Co., Cleveland, O.

Victoraire—Cooling Coils, Condensing Units, Electronic Air Cleaners, Air Conditioning Units. Hall-Neal Furnace Co., Indianapolis, Ind.

Victorgas-Gas Furnaces. Hall-Neal Furnace Co., Indianapolis, Ind. Victoroil—Oil Furnaces. Hall-Neal Fur-

nace Co., Indianapolis, Ind.

Victory—Registers. Register & Grille
Mfg. Co., Inc., Brooklyn, N. Y.
Vikimatic—Furnaces, Water Heaters.
Viking Manufacturing Corp., Cleveland, Ohio.

viking—Arc Welders. Mid-States Welder Mfg. Co., Chicago, Ill.
Vincul—Rust Remover. Protective Coat-

rings, Inc., Detroit, Mich.
Visaflame—Oil Burner Control. Mercoid Corp., Chicago, Ill.
Vise-Grip—Clamps. Petersen Mfg. Co.,
Inc., DeWitt, Nebr.

Visoleak-Refrigerant

Leak Detectors. Allin Mfg. Co., Chicago, Ill. Vital-Calker—Caulking Guns. Products Mfg. Co., Cleveland, O.

Vitricel—Furnace Cement. Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio. Vit-Rock—Water Heaters. Coleman Co.,

Inc., Wichita, Kans. itro Flame—Oil Burners. Kresno-Stamm Mfg. Co., Palisades Pk., N. J. Vitroliner-Prefabricated Chimneys, Chimney Linings, Vent and Flue Pipe and Fittings. Condensation Engineering

Corp., Chicago, Ill.

Volocitrol—Air Control Vanes. BarberColman Co., Rockford, Ill.

Volunteer—Gas Water Heaters. M. M.

Hedges Mfg. Co., Inc., Chattanooga,

Vornado-Fans. O. A. Sutton Corp., Wichita, Kans.

Vortex-Oil Burners. Iron Fireman Mfg. Co., Cleveland, Ohio.

V-Sol—Degreasing Compounds. Speco, Inc., Cleveland, O.

Vulcalock-Bonding Adhesives. B. F. Goodrich Industrial Products Co., Akron, O.

Vulcan-Stokers. Canton Stoker Corp., Canton, Ohio.

Vulcatex—Caulking and Glazing Com-pounds. A. C. Horn Co., Inc., Long Island City, N. Y.

Vulco-V-Belts and Pulleys. Gates Rubber Co., Denver, Colo.

Vulcomount-Pulleys. Gates Rubber Co., Denver, Colo.

W-Sheets. Wheeling Corrugating Co., Wheeling, W. Va.

WAW-Tools. W. A. Whitney Mfg. Co.,

Rockford, Ill.
W.O. No. 1—Rust Preventive Chemicals. Turco Products, Inc., Los Angeles, Calif. WR-Controls. White-Rodgers Co., St.

Louis, Mo. Warehouser-Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa. Warmahl—Furnaces. Major Metal Prod-

ucts, Inc., Los Angeles, Calif. Warm Morning-Incinerators. Stove Co., Kansas City, Mo.

Wascolite—Roof Ventilators. Wasco Products, Inc., Cambridge, Mass. Wascolite Airdome—Roof Ventilators. Wasco Products, Inc., Cambridge, Mass.

Wascolite Skydome-Skylights. Products, Inc., Cambridge, Mass. Water-Air-Gas Water Heaters, Handley-

Brown Co., Jackson, Mich. Waterbase—Furnaces, Farri Farris Furnace Co., Springfield, Ill. Water-Boy—Humidifier Valves. Maid-

O'-Mist, Inc., Chicago, Ill. Vaterbury—Furnaces. Waterman-Water-Waterbury-Furnaces.

Waterbury—Furnaces. Waterman-Water-bury Co., Minneapolis, Minn.
Waterfoil—Waterproofing. A. C. Horn Co., Long Island City, N. Y.
Waterloo Airfoil—Grilles, Louvres, Reg-isters. Titus Manufacturing Corpora-tion, Waterloo, Iowa.
Water-RAY-trola—Oil-fired Water Heat-er, Ray Oil Burger, Co. Son Francisco.

er. Ray Oil Burner Co., San Francisco, Calif.

Waterseal-Cement. Thompson & Co.,

Oakmont, Pa.
Waterspar—Enamels and Lacquers. Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Watertender—Humidifier Valves. Skuttle
Mfg. Co., Milford, Mich.

Wa-Trol-Duct Damper Regulators. Thermal Agency, Houston, Tex. Weathercaster-Controls. Minneapolis-Honeywell Regulator Co., Minneapolis,

Minn. Weather-Chrome-Time Switches. Automatic Devices Div. of American Machine & Metals, Inc., Western Springs,

Weather-Flo-Controls. Automatic Devices Div. of American Machine & Metals, Inc., Western Springs, Ill. Weatherlok—Fans. Ventrola Mfg. Co.,

Owosso, Mich. Weathermaker-Air Conditioning Units.

Carrier Corp., Syracuse, N. Y.
Weathermatic—Air Conditioning Units.
The Williamson Co., Cincinnati, O.

Weathertrol-Air Conditioning Units, Weathertrol—Air Conditioning Units, Condensing Units, Therm-Air Mfg. Co., Peckskill, N. Y.

Weathertron—Air Conditioning Units. General Electric Co., Air Conditioning

Dept., Tyler, Tex. Weatherwise—Unitary Air Conditioners

Aug. G. Barkow Mfg. Co., Inc. Mil-waukee, Wis.

Weath-R-Seal Washers—Sheet Metal Fastenings, Fabricated Products Co., West Newton, Pa.

Weightlifter-Tailgate for Trucks. H. S. Watson Co., Emeryville, Calif.

Weir-Furnaces, Stokers. Meyer Furnace Co., Peoria, Ill.

Weircoloy-Copper Bearing Galvanized sheets. Weirton Steel Co., Weirton,

Weircote—Lead Sheets. Weirton Steel Co., Weirton, W. Va. Weirite-Tin Plate. Weirton Steel Co., Weirton, W. Va.

Weirzin-Electrolitic Zinc Coated Sheets. Weirton Steel Co., Weirton, W. Va. eisco-Skylight Lifts. H. Weiss &

Weisco—Skylight Lifts. H. Co., New York, N. Y.

Wej-It-Expansion Bolts. Kirel, Inc.,

Wej-It—Expansion Bolts, Kirei, Inc., Kingston, N. Y. Weldanpower—Arc Welders. Lincoln Electric Co., Cleveland, O. Weldmaster—Brazing Torches. Modern Engineering Co., St. Louis, Mo. Weld-o-trol—Spot Welders. Westinghouse Electric & Mfg. Co., Pittsburgh,

Weldpower-Welders, Raytheon Co., In-dustrial Apparatus Div., Manchester,

Wesco-Gas and Oil Burners, Furnaces. Northwest Foundry & Furnace Co., Portland, Ore.

Western—Blowers, Direct Fired Heaters, Furnaces, Air Conditioning Units. Tuck-Aire Furnace Co., San Francisco, Calif.

Western—Water Heaters, W. B. Bastian Mfg. Co., Los Angeles, Calif. Westernaire—Roof Ventilators, Fans,

Western Engineering & Mfg. Co., Venice, Calif.

Western Airout—Roof Ventilators. West-ern Engineering & Mfg. Co., Venice, Calif. Western Ridge-Roof Ventilators. West-

ern Engineering & Mfg. Co., Venice, Calif.

Western Rotary-Roof Ventilators. Western Engineering & Mfg. Co., Venice, Calif.

Western Transaire—Roof Ventilators.
Western Engineering & Mfg. Co., Venice, Calif.

Westwood-Furnaces. Williams Furnace Co., Buena Park, Calif.

Wetoil-Soldering Flux. Farrelloy Co., Inc., Philadelphia, Pa.

Wevelite-Insulation. Insulite Div., Min-nesota and Ontario Paper Co., Minneapolis, Minn.

Whip Clamp—Clamping Device. Whip-ple Sheet Metal Works, Inc., Lansing, Mich.

Whirlcone—Spray Nozzles. Water Cooling Equipment Corp., St. Louis, Mo. Whirljet-Water Nozzles. Spraying Systems Co., Bellwood, Ill.

Whisper Quiet—Blower-Filter Units, Burners, Cabinets and Casings, Electronic Air Cleaners, Furnaces and Air Conditioning Units. Rybolt Heater Co., Ashland, O.

Whistler-Fuel Oil Tank Gages. Applied Mechanics Co., Boston, Mass.

White Top-Roofing Felt. Johns-Man-ville, New York, N. Y.

Whitney-Jensen—Sheet Metal Working Machinery and Tools. Whitney Metal Tool Co., Rockford, Ill.

Wiechert-Furnaces. St. Clair Foundry Corp., Centralia, Ill.

Wigwam—Chimney Caps and Tops. Boston Machine Works Co., Lynn, Mass. Wilshire—Water Heaters, Furnaces. Southern Heater Corp., Compton, Calif.

Sales Co., New York, N. Y.
Wilson—Furnace Brushes. Worcester
Brush & Scraper Co., Div. Mason
Worcester Brush Co., Worcester, Mass.

Wind Electric-Roof Ventilators. Hirsch-

man.Pohle Co., Inc., LeRoy, N. Y.
Windmaker—Roof Ventilators, Fans.
Phil Rich Fan Mfg. Co., Houston, Tex. Windmaster-Fans. Acme Engineering & Mfg. Corp., Muskogee, Okla.

Windmaster—Fans, Louvers and Shut-ters. Consolidated General Products, Inc., Houston, Tex. Wind-O-Cool-Fans. Belco Industries,

Inc., St. Louis, Mo.

Wind-O-Vent-Ventilator Units. Reed

Unit-Fans, Inc., New Orleans, La. Wingfoil—Fans. L. J. Wing Mfg. Div., Aero Supply Mfg. Co. Inc., Linden,

Winkler-Furnaces, Oil & Gas Burners, Stokers. Stewart-Warner Corp., Heat-ing and Air Conditioning Div., Lebanon, Ind.

Winter-Chaser-Furnaces, Direct Fired Heaters. Campbell Heating Co., Des

Moines, Iowa.

Winter King-Furnaces. McPherson Furnace & Supply Co., Portland, Ore. Winter Weathermaker-Furnaces. Carrier Corp., Syracuse, N. Y.

Wise-Furnaces. Sheet Metal Mfg. Co.,

Youngstown, O. Wizard-Furnaces.

Co., Inc., Gadsden, Ala. Wizard-Air Conditioning Units. Western Auto Supply Co., Kansas City, Mo. Wolfe-Angle Meter, Center Finders, Circle Meter, Divisor, Protractor. Inter-

Agricola

state Sales Co., New York, N. Y. Wondaire-Gas Burners, Furnaces. Cox Mfg. Co., Ridgeville, Ind.

Wonder Bender-Portable hand brake. Elgen Mfg. Corp., Long Island City,

Wonderglas-Water Heaters. American Appliance Mig. Corp., Santa Monica,

Wonderglas-Water Heaters. Water Heater Co., Cleveland, O. Woolfelt-Duct Insulation. Nicolet In-

dustries, Inc., Norristown, Pa. Woolmaster-Blowers. Molloy Machine

Corp., Chicago, Ill. Workhorse-Electric Motors. Franklin

Electric Co., Inc., Bluffton, Ind. Worksaver-Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa.

Wormfeed-Stokers. Canton Stoker

Corp., Canton, Ohio. Wyco-Flexible Shaft Machines. zenbeek & Staff, Inc., Chicago, Ill. Wycoflex—Grinder. Wyzenbeek & Staff,

Inc., Chicago, Ill.

X.X.-Punches. Duro-Dyne Corp., Farmingdale, N. Y.

Xcel-Flux—Soldering Flux. American Products Corp., Chicago, Ill. Xit—Ventilators. Iona Ventilator Co., Flux.

Inc., Philadelphia, Pa. X-Pan—Expansion Anchors.

Lead Co., New York, N. Y.

X-Pandoseal-Transparent Waterproofing. X-Pando Corp., Long Island City,

Xyron-Welding Rod. Eutectic Welding Alloys Corp., Flushings, N. Y.

Yager's-Flux and Solder. Alex R. Benson Co. Inc., New Hartford, N. Y. Yale—Water Heaters. W. B. Basti B. Bastian Mfg. Co., Los Angeles, Calif.

Yankee-Damper Clips and Tips. Howes-Woods Company, Cambridge, Mass. Yard King-Warehouse Trucks. Yale & Towne Mfg. Co., Philadelphia, Pa. YarWay—Nozzles. Yarnall-Waring Co.,

Philadelphia, Pa.

Yoloy-Plates and Sheets, Youngstown Sheet & Tube Co., Youngstown, Ohio. York-Heat-Conversion Burners, Water Heaters. York-Shipley, Inc., York, Pa.

YouBert-Collectors and Blow Pipe Fittings. Young & Bertke Co., Cincinnati,

Z

Z Seal—Bearings. Shafer Bearing Div., Chain Belt Co., Downers Grove, Ill. Zack-O-Mix-Waterproofing. Tole of Paint and Chemical Co., Toledo, O. Toledo

Zatko-Fan and Motor Pulleys. Replacement Parts, Inc., Euclid, O.

Zeph-Air-Gas Furnace. XXth Century Heating & Ventilating Co., Akron,

Zephair—Fans. Hunter Div., Robbins & Myers, Inc., Memphis, Tenn. Zephyr-Humidifiers. Maid-O'-Mist, Inc.,

Chicago, Ill. Zephyr-Saws. DoAll Company, Minneapolis, Minn.

Zephyrcon-Condensers. Larkin Coils, Inc., Atlanta, Ga. Zero—Cement and Refractories.

ard Fuel Engineering Co., Detroit, Mich.

Mich.
Zerok—Metal Protective Coatings. Atlas
Mineral Products Co., Mertztown, Pa.
Zinaloy—Gutters, Conductor Pipe and
Fittings, Ridge Roll, Roofing, Sheets,
Moulding and Trim, Shingles and Tile.
Matthiessen & Hegeler Zinc Co., La-Salle, III.

Zincoater-Paint. Tropical Paint Co., Armco Steel

Cleveland, O.
Zincgrip—Metal Sheets. Armco
Corp., Middletown, Ohio.
Zincop—Flashings. Associated
Products Corp., La Porte, Ind.
Zin o din e—Corrosion-preventive

Zia o din e—Corrosson-preventive and paint bonding chemical. American Chemical Paint Co., Ambler, Pa. Zip—Portable Spot Welders. Mid-States Welder Mfg. Co., Chicago, Ill. Zip Kote—Metal Protective Coating. Klem Chemicals, Inc., Dearborn, Mich. Zipp—Degressing Compounds. Stewartpp—Degreasing Compounds. Stewart-Hall Chemical Corp., Mt. Vernon,

Zip-Tin-Flux. Tinit Mfg. Co., Inc., Denver, Colo. Zip-Tite-Flux. Tinit Mfg. Co., Inc.,

Denver, Colo. Zone-A-Trol-Duct Damper Controls. Zone Control System Kits. Econo Products Co., Div. of Viking Instruments, East Haddam, Conn.

Zone-Pak-Damper Assembly for Furnace Plenum. Ryniker Steel Products. Northern Pacific Industrial Site, Billings, Mont.

Zonolite-Insulation. Robinson Insulation Co., Great Falls, Mont.

# Section of

# American Artisan

# 1960 DIRECTORY OF WARM AIR HEATING, RESIDENTIAL AIR CONDITIONING AND SHEET METAL PRODUCTS

Part 4—ALL MANUFACTURERS' ADDRESSES

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A C Products, Inc., 4512 Mt. Vernon, Houston, Texas.
ACBC Electric Corp., 40 E. 49th St., New York 17, N. Y.
A-J Mfg. Co., 3601 E. 18th St., Kansas City 27, Mo.
AMIC Mfg. Corp., 21-25 44th Ave., Long Island City 1, N. Y.
A-P Controls Div., Controls Co. of America, 2450 N. 32nd St.,
Milwaukee 45, Wis.
Abbeon Supply Co., 179-15 Jamaica Ave., Jamaica 32, N. Y.
Accurate Sheet Metal & Mfg. Works, 2336-40 Milwaukee Av.,
Chicago 47, Ill. Accurate Sheet Metal & Mrg. Works, 2336-40 Milwaukee Av., Chicago 47, Ill.

Acer & Whedon, Inc., Commercial St., Medina, N. Y.

Ace-Sycamore, Inc., 447 DeKalb Ave., Sycamore, Ill.

Acet-A-Tips Co., 5069 W. Madison St., Chicago 44, Ill.

Ace Wire Brush Co., 146 Fulton St., Brooklyn, N. Y.

Ackermann Mfg. Co., Wheeling, W. Va.

Acme Asbestos Covering & Flooring Co., 222 Elizabeth St., Chicago 7, Ill. Acme Elect. Corp., 81 Water St., Cuba, N. Y.
Acme Electric Heating Co., 1217 Washington St., Boston 18, Mass Acme Electric Welder Co., 2618 Fruitland Ave., Los Angeles 58, Calif. Acme Engineering & Mfg. Corp., Box 1203, Muskogee, Okla. Acme Equipment Co., Inc., 126 S. Clinton St., Chicago 6, Ill. Acme Equipment, Inc., Central Trust Bldg., Altoona, Pa. Acme-Fisher Div., Broadway Rubber Corp., 529 E. Broadway, Acme-Fisher Div., Broadway Rudder Corp., 529 E. Broadway, Louisville, Ky.
Acme Furnace Fitting Co., 2124 W. 82nd Pl., Chicago 20, Ill.
Acme Heat & Power Inc., 318 Ten Eyck St., Brooklyn 6, N. Y.
Acme Industries, Inc., 600 N. Mechanic St., Jackson, Mich.
Acme Mfg. Co., 7500 State Rd., Philadelphia 36, Pa.
Acme Oil Burner Co., Inc., 210 Third Av. S. W., Cedar Rapids, Iowa. lowa.

Acme Roof Jacket Co., 411 Plymouth Ave., Minneapolis, Minn.

Acme Steel Co., 135th St. and Perry Ave., Chicago 27, Ill.

Acme Tool Co., 71 W. Broadway, New York 7, N. Y.

Acro Welder Mfg. Co., 1719 W. St. Paul Ave., Milwaukee 3, Wis.

Adams Co., The, Bridge St., Dubuque, Iowa.

Adams Furnace Corp., 7530 E. Jackson St., Paramount, Calif.

Adams Mfg. Co., 1530 St. Clair Ave., Cleveland 14, O.

Addison Products Co., Addison, Mich.

Address Mfg. Co., 2105 W. King St. Franklin Park Ill. Addresso Mfg. Co., 9105 W. King St., Franklin Park, Ill. Adelta Mfg. Co., 21st & Ellsworth Sts., Philadelphia 46, Pa. Adelta Mfg. Co., 21st & Ellsworth Sts., Philadelphia 46, Pa. Adhesive Tape Corp., 58 Seabring St., Brooklyn 31, N. Y. Admiral Corp., 3800 W. Cortland St., Chicago 47, Ill. Adre Co., The, 8980 Hawthorne Lane, Hales Corners, Wis. Advance Furnace Co., 2300 E. Douglas, Wichita 7, Kans. AEMCo Inc., 10 State St., Mankato, Minn. Aerofin Corp., 101 Greenway Ave., Syracuse 3, N. Y. Aeroil Products Co., Inc., 69 Wesley St., South Hackensack, N. J. Aeroquip Corp., Marman Div., 11214 Exposition Blvd., Los Angeles 64, Câlif. Aerotec Corp., The, Greenwich, Conn. Aerovent Fan Co., Inc., Ash and Barton Sts., Piqua, Ohio. Aget Mfg. Co., 1303 E. Church St., Adrian, Mich. Agricola Furnace Co., Inc., North 12th St., Gadsden, Ala. Aimco Products Corp., Inc., Subsidiary of Yuba Consolidated Industries, Inc., 801 W. 21st St., Tulsa, Okla. Air Conditioning Engineering Co., 44 First St., Cambridge 41, Mass.

Air Conditioning Products Co., 2340 W. Lafayette, Detroit 16,

Air-Con Filter Corp., 1137 S. Third, Memphis 6, Tenn. Air Control Products, Inc., 158 Center St., Coopersville, Mich.

Air Controls, Inc., Div. Cleveland Heater Co., 2310 E. Superior Av., Cleveland 14, Ohio. Air Cooling Engineering Co., Box 744, Evanston, Ill.
Air Devices, Inc., 185 Madison Ave., New York 16, N. Y.
Air Distribution Products Co., 8201 W. 3rd St., Los Angeles 48, Calif. Aireactor Corp., 271 Madison Ave., New York, N. Y.
Aireflo Furnace Pipe Co., 9987 E. Grand River, Brighton, Mich.
Air-Factors, Inc., 1624 S. Raymond Ave., Monrovia, Calif.
Airfan Engineering Co., 7401 Anaheim-Telegraph Rd., Los
Angeles 22, Calif. Air Filter Corp., 4554 W. Woolworth Ave., Milwaukee 18, Wis. Airflex Corp., 522 N. Hickory St., Champaign, Ill. Airfloor Co. of California, Inc., 13729 E. Rosecrans Ave., Santa Airfloor Co. of California, Inc., 13729 E. Rosecrans Ave., Santa Fe Springs, Calif.
Airflow Co., P. O. Box 1765, Wheaton, Md.
Airgard Mfg. Co., 362 W. Erie St., Chicago 10, Ill.
Airguide Instrument Co., 2210 Wabansia Ave., Chicago 47, Ill.
Airguide Plastics Corp., 20 S. E. 3rd Ave., Miami 32, Fla.
Air-Heet Corp., 4535 W. Washington Blvd., Chicago 24, Ill.
Airjet Ventilator Co., 133 Industrias, San Clemente, Calif.
Airmaster Corp., 1801 W. Belle Plaine Ave., Chicago 13, Ill.
Air-Maze Corp., 25000 Miles Rd., Cleveland 28, O.
Airo Industries, 1712 W. Florence Ave., Los Angeles 47, Calif.
Airolite Co., Marietta. O. Airolite Co., Marietta, O. Airolite Co., Marietta, O.

Air-Path Products Co., 4620 Doll Ave., Baltimore 15, Md.

Air Products, 2718 Gravois Ave., St. Louis 18, Mo.

Air Products, Inc., Allentown, Pa.

Air Purification Service, Inc., 136 Liberty St., New York, N. Y.

Air Reduction Sales Co., 150 E. 42nd St., New York 17, N.Y.

Air & Refrigeration Corp., 439 Madison Ave., New York 22.

Airserco Mfg. Co., 435 Melwood Ave., Pittsburgh 13, Pa.

Airson Co., Inc., 1109 N. Lovers Lane Rd., Milwaukee, Wis.

Air-Speed Tool Co., 1502 W. Slauson Av., Los Angeles 47,

Calif. Calif. Air Stream Filter Corp., 2100 Washington Av., St. Louis 3, Mo. Airtemp Div., Chrysler Corp., 1600 Webster St., Dayton 1, Airtherm Mfg. Co., 706 S. Spring Ave., St. Louis 10, Mo. Airtron Corp., Div. of The Higgins Metal Products Co., 2000 Broadway, Holland, O Ajax Building Bracket Co., 1551 Rydal-Mount Rd., Cleveland Heights 18, Ohio. Ajax Furnace Fitting Co., Div., Cincinnati Sheet Metal & Roofing Co., 216 E. Front St., Cincinnati 2, Ohio. Alabama Metal Lath Co., P. O. Box 992, Birmingham, Ala. Aladdin Heating Corp., 1111 West Ave. 137, San Leandro, Aladdin Mfg. Co., Odessa, Mo. Alan Wood Steel Co., P. O. Box 112, Conshohocken, Pa. Albertson & Co., Inc., Sioux City 2, Iowa. Alco Valve Co., 865 Kingsland Av., St. Louis 30, Mo. Aldrich Co., Wyoming, III.

Alf-Herman Corp., 4400 Clayton Ave., St. Louis 10, Mo.

Allan Engineering Co., Box 1211, Dallas 1, Texas.

Allegheny Body Co., Inc., 1633 N. Sixth St., Philadelphia, Pa

Allegheny Ludlum Steel Corp., 2020 Oliver Bldg., Pittsburgh

Allen, H. D., 3201 Casitas Ave., Los Angeles 39, Calif. Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee 4, Wis Allen Co., Inc., L. B., 9302 Berenice, (Box 96) Schiller Park,

Allen Cooler & Ventilator Inc., 704 Woodward, Rochester, Mich

Allen Industries, Alva, 1001-1015 N. 3rd St., Clinton, Mo.

Allen Mfg. Co., Inc., Nashville 1, Tenn. Alliance Mfg. Co., Lake Park Blvd., Alliance, O.

Mass.

Mich.

Allied Decals, Inc., 8469 Hough Ave., Cleveland, O. Allied Federal Industries, 14 Mitchell Pl., Newark, N. J. Allied Porcenell, Inc., Waukegan, Ill. Allied Precision Industries, Inc., 414 Stevens St., Geneva, Ill. Allied School of Mechanical Trades, Inc., 1338 S. Michigan, Chicago, Ill.

Allin Mfg. Co., 410 N. Hermitage, Chicago, Ill. Allis-Chalmers Mfg. Co., P. O. Box 512, Milwaukee 1, Wis. Allis Co., Louis, 427 Stewart St., Milwaukee 7, Wis.

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden

City, N. Y.
Allmetal Weatherstrip Co., 1911 Ridge Ave., Evanston, Ill.
Alloy Propeller Co., Zelienople, Pa.
All-State Welding Alloys Co., Inc., 249-55 Ferris Ave., White Alpha Metals, Inc., 56 Water St., Jersey City, N. J.

Alphil Spot Welder Mfg. Corp., 1058 Pacific St., Brooklyn 1,

N. Y.
Alsynite Co. of America, 4654 De Soto St., San Diego 9, Calif.
Alter Co., Inc., Harry, 1717 S. Wabash Ave., Chicago 16, Ill.
Alton Mfg. Co., 1112 Ross Av., Dallas 2, Texas.

Alumatic Corp. of America, 2081 S. 56th St., Milwaukee 19, Wis. Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa. Amana Refrigeration, Inc., Amana, Ia. American Actuator Corp., P. O. Box 384, 471 Glenbrook Rd.,

Stamford, Conn.

American Agile Corp., P. O. Box 168, Bedford, Ohio American Air Filter Co., Inc., 355 Central Av., Louisville, Ky. American Appliance Mfg. Corp., 2425 Michigan Ave., Santa Monica, Calif.

American Brass Co., 414 Meadow St., Waterbury 20, Conn. American Chemical Paint Co., Brookside Av., Ambler, Pa. American Cleaning Equipment Corp., 5024 Rose St., Schiller Park, Ill.

American Coils Co., Route 524, Farmingdale, N. J. American Comfort Mfg. Co., 2401 Main St., Evanston, Ill. American Control Co., 133 E. Palmer Ave., Compton, Calif. American Coolair Corp., 3604 Mayflower St., P. O. Box 2300,

Jacksonville 3, Fla. American Cooling Tower Co., 2710 McGee St., Kansas City, Mo. American Diffuser Co., 969 E. 140 St., Cleveland 10, O. American District Telegraph Co., 155 Sixth Ave., New York,

N. Y. American Electrical Heater Co., 6110 Cass Ave., Detroit 2, Mich. American Engineering Co., Wheatsheaf Lane & Sepviva St.,

Philadelphia 37, Pa.

Merican Felt Co., Glenville, Conn.

American Flange & Mfg. Co., Inc., 30 Rockefeller Plaza, New York 20, N. Y.

American Foundry & Furnace Co., 10th & Washington Sts., Bloomington, Ill.

American Gase & Chemicals, Inc., Leak-Tec Div., 120 East End

Ave., New York 28, N. Y.
American Gas Co., 969 E. 140th St., Cleveland, O.
American Hair & Felt Co., Room 322, Merchandise Mart, Chicago 54, Ill.

American Hard Rubber Co., Ace Road, Butler, N. J.

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md. American Insulator Corp., New Freedom, Pa.

American Lincoln Corp., 318 S. St. Clair, Toledo, O. American-Marietta Co., 101 E. Ontario St., Chicago 11, Ill.

American Metal Products, 6100 Bandini Blvd., Los Angeles 22, Calif.

American Metal Works, Inc., 321 N. Alexander, New Orleans, La. American Meter Co., Inc., Reliance Regulator Div., 1000 Meridian Ave., Alhambra, Calif.

American Mohawk Div., Burner Mfg. Corp. of America, 580 Hudson St., New York 14, N. Y.

American MonoRail Co., 1111 E. 200 St., Cleveland 17, O. American Potash & Chemical Corp., 3030 W. 6th St., Los Angeles 54, Calif.

American Products Corp., 525 S. Dearborn St., Chicago 5, Ill. American Pulley Co., 4200 Wissahickon Av., Philadelphia 29, Pa. American Pullmax Co., Inc., 2455 N. Sheffield, Chicago, Ill.
American Radiator & Standard Sanitary Corp., Plumbing and
Heating Div., 40 W. 40th St., New York 18, N. Y.
American Rock Wool Co., 20 N. Wacker Dr., Chicago 6, Ill.

American Sand-Banum Co., Inc., 1 N. Merrick Ave., Merrick,

American Saw & Mfg. Co., Inc., 67 Boylston St., Springfield, Mass. American Screw Co., Willimantic, Conn.

American Silver Co., Inc., 36-07 Prince St., Flushing, N. Y. American Sisalkraft Corp., Attleboro, Mass.

American Smelting and Refining Co., Federated Metals Div., 120 Broadway, New York 5, N. Y. American Solder & Flux Co., 19th & Willard Sts., Philadelphia

40, Pa. American-Standard Air Conditioning Div., 40 W. 40th St., New

York 18, N. Y. American-Standard Industrial Div., Detroit 32, Mich. American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland, Ohio.

American Tape Co., 4058 Beaufait, Detroit 7, Mich. American Viscose Corp., 350 Fifth Ave., New York, N. Y. American Warming & Ventilating Co., 1017 Summit St., Toledo 4, Ohio.

American Welding & Mfg. Co., Building Products Div., Warren,

Amerock Corp., 4000 Auburn, Rockford, III.

Ammerman Co., Inc., S. Greeley St., Stillwater, Minn.

Ammo Products, Inc., 1100 20th St., N. W., Washington, D. C.

Ampere Industries, 60 Boston St., Newark 3, N. J.

Ampion Corp., 4-88 Forty-Seventh Av., Long Island City 1, N. Y.

Ampower Products Co., 10207 S. Ridgeland, Box 464, Oak

Lawn, Ill.

Anaconda Aluminum Co., The, P. O. Box 1654, Louisville 1,

Anaconda Metal Hose Div., American Brass Co., P. O. Box 791, Waterbury 20, Conn. Anchor Div. Stratton & Terstegge Co., Inc., P. O. Box 311, New

Albany, Ind. Anchor Metal Co., Inc., 966 Meeker Ave., Brooklyn 22, N.Y. Anderson Metals Corp., 919 E. 22nd St., Kansas City, Mo. Anderson-Snow Corp., 3863 N. Milwaukee Ave., Chicago 41, Ill. Anemostat Corp. of America, 10 E. 39th St., New York 16,

N. Y Annis Air Filter Div., Royal Heaters, Inc., 1024 Westminster Ave., Alhambra, Calif.

Ansul Chemical Co., Refrigeration Div., Marinette, Wis. Anthony Co., Streator, Ill.

Anti-Corrosive Metal Products Co., Inc., Castleton-on-Hudson, Anti-Friction Bearings Co., 2020 S. Figueroa St., Los Angeles

7, Calif.
Anton Co., 15 Bridge St., New York 4, N. Y.
Appleton Supply Co., Inc., P. O. Box 319, Appleton, Wis.
Appliance Div., Motor Wheel Corp., Lansing 3, Mich.
Appliances Engineering, 2052 N. Western, Chicago, Ill.
Applied Mechanics Co., 381 Congress St., Boston 10, Mass.
Aquatrol Laboratories, Inc., Clifton, N. J.
Architectural Plastics, P. O. Box 45, Darien, Conn.

Arco Co., The, 7301 Bessemer Ave., Cleveland 27, O. Arco Mfg. Corp., 542 W. 55th St., New York 19, N. Y. Arcos Corp., 1500 S. 50th St., Philadelphia 43, Pa. Arden Airoflo Engineering, Inc., 2207 N. Chico Ave., El Monte,

Calif.

Ardmore Products, Inc., Aldene & First Ave., Roselle, N. J. Arex Co., 612 N. Michigan Ave., Chicago 11, Ill. Argo Industries, 524 Wethersfield Ave., Hartford, Conn. Argo Plastic Products, 1400 W. Tenth St., Cleveland 13, O. Arizona Maintenance Co., 1920 Miracle Mile, Tucson, Ariz. Arkla Air Conditioning Corp., Shannon Bldg., Little Rock, Ark. Arklon Mfg. Co., P. O. Box 3501, Cleveland 18, O. Arkos Mfg. Co., 7310 Woodward Ave., Detroit 2, Mich. Armco Steel Corp., 703 Curtis St., Middletown, Ohio. Armor Electric Mfg. Co., 1020 Holland St., Erie, Pa.
Armour Alliance Industries, 16123 Armour St., N. E., Alliance,

Armstrong Cork Co., 4404 Concord St., Lancaster, Pa. Armstrong Fittings Co., P. O. Box 1356, Des Moines, Iowa. Armstrong Furnace Co., Div. of National Union Electric Corp., 851 W. Third Ave., Columbus 8, O. Armstrong Machine Works, 874 Maple St., Three Rivers, Mich.

Arno Adhesive Tapes, Inc., 4110 Ohio St., Michigan City, Ind. Arro Expansion Bolt Co., N. Boone Ave., Marion, O. Arrow Foundry Co., East Album St., Freeport, Ill.

Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.

Art Valve Co., 4662 N. Lincoln Ave., Chicago 25, Ill. Arvin Industries, Inc., 13th & Big Four, Columbus, Ind. Ashburn Supply Co., 8648 Warner Dr., Culver City, Calif. Ashcraft Co., J. P., 5643 Dyer St., Dallas 6, Tex. Associated Metal Products Corp., 517 Brighton St., La Porte, Ind.

Associated Mills Inc., 303 W. Monroe, Chicago, Ill. Associated Products, 401 N. Maple Dr., Beverly Hills, Calif. Aston Products, Inc., 22804 Dequindre St., Warren, Mich. Atcheson Glass Co., 920 Main St., Buffalo 2, N. Y. Atchison Specialty Mfg. Co., 1620 Pacific Av., Atchison, Kans. Atkins Saw Div., Borg-Warner Corp., 402 S. Illinois St., Indian-

Atkins Saw Div., Dorg-warner Corp., 402 5. Allahors Co., 2015 9, Ind.
Atkomatic Valve Co., Inc., 545 W. Abbott St., Indianapolis, Ind.
Atlas Míg. Co., Eustis and Robbins, St. Paul 14, Minn.
Atlas Mineral Products Co., 101 Norman St., Mertztown, Pa.
Atlas Valve Co., 282 South St., Newark 5, N. J.
Auburn Burner Co., Edgerton, O.
Auburn Burner Co., Edgerton, O.
Auburn Burner Co., Edgerton, O.

Auburn Foundry, Inc., Heating Div., 617 W. 11th St., Auburn,

Auburn Spark Plug Co., Inc., Auburn, N. Y.
Auer Register Co., 6600 Clement Ave., Cleveland 5, Ohio.
Austin Engineering & Mfg. Co., Inc., 8935 San Jose Rd.,

Ysleta, Tex.
Austin Mfg. Corp., 305 Perry Brooks Bldg., Austin 1, Tex.
Au-Temp-Co Corp., 657 Broadway, New York 12, N. Y.
Auto-Flo Corp., 12085 Dixie St., Detroit 39, Mich.
Autogas Co., 25th & Congress, Bellwood, Ill.
Automatic Burner Corp., 1823 Carroll Av., Chicago 12, Ill.
Automatic Control Co., 995 University Ave., St. Paul 4, Minn.
Automatic Devices Div. of American Machine & Metals, Inc.,

714 Hillgrove Av., Western Springs, Ill.
Automatic Humidiner Co., 19th & Main Sts., Cedar Falls, Iowa.
Automatic Solid Fuels Equipment Co., 2608 Madison, Indianapolis 4, Ind. Automatic Switch Co., Hanover Rd., Florham Park, N. J. Automatic Timing & Controls, Inc., King of Prussia, Pa.

B

B-G Engineering Co., 5321 Long St., Houston, Texas Babbitt Chemical Co. Inc., 36 Prospect St., New Bedford, Mass. Babcock & Wilcox Co., Refractories Div., 161 E. 42nd St., New York 17, N. Y. Bacharach Industrial Instrument Co., 200 N. Braddock Ave.,

Bacharach Industrial Instrument Co., 200 N. Braddock Ave., Pittsburgh 8, Pa.
Badger Furnace Pipe Co., 1806 S. Park, Madison, Wis.
Bahnson Co., 1001 S. Marshall, Winston-Salem, N. C.
Bailey Co., Chas. M., 667 Folsom St., San Francisco 7, Calif.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Baker Furnace & Cleaner Mfg. Co., 2810 Midwood Av., Toledo 6, Ohio.

Bal-Air, Inc., 1210 McGavock St., Nashville, Tenn.

Bal-Air, Inc., 1210 McGavock St., Nashville, Tenn.
Baldor Electric Co., 4358 Duncan Av., St. Louis 10, Mo.
Baldwin-Ehret-Hill, Inc., 500 Breunig Ave., Trenton 2, N. J.
Baldwin-Ward Mfg. Co., Ottawa, Kans.
Ballastran Corp., 1701 N. Calhoun St., Pt. Wayne 7, Ind.
Baltimore Aircoil Co., P. O. Box 7322, Baltimore 27, Md.
Banner Burner Co., 227-E Indianola Ave., Youngstown 7, Ohio.
Banner Welder, Inc., 6804 N. 43rd St., Milwaukee 9, Wis.
Barber-Colman Co., 1706 Rock St., Rockford, Ill.
Barber Mfg. Co., 1052 E. 134th St., Cleveland 10, O.
Bar-Brook Mfg. Co., Inc., 6135 Linwood Av., Shreveport, La.
Barclay, Inc., Robert, 1234 W. Fulton St., Chicago, Ill.
Bard Mfg. Co., Evansport Road, Bryan, Ohio.
Barke Products, Inc., Bay Village, O.
Barkow Mfg. Co., Inc., Aug. G., 2230 S. 43rd St., Milwaukee
46, Wis.

Barkow Mfg. Co., Inc., Aug. G., 2230 S. 43rd St., Milwaukee 46, Wis.

Barksdale Valves, 5125 Alcoa Ave., Los Angeles 58, Calif.
Barnard Co., Geo. A., 74 Prescott St., Worcester, Mass.
Barnebey-Cheney Co., Pur Air Div., Cassady at 8th Ave., Columbus 19, O.

Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.
Barnhardt Mfg. Co., P. O. Box 2176, Charlotte 1, N. C.
Barreed Sunlight Paint Co., 35 Dudley St., Providence 1, R. I.
Barrett Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Barry Blower Co., 3100 California St., N. E., Minneapolis, Minn.

Minn.

Barry Controls Inc., 1000 Pleasant St., Watertown, Mass. Bartlett Mfg. Co., 3003 E. Grand Blvd., Detroit 2, Mich. Basford Co., H. R., 235 — 15th St., San Francisco, Calif. Basford Mfg. Co., 235 15th St., San Francisco 3, Calif. Baso Inc., P. O. Box 461, Milwaukee 1, Wis. Bastian-Blessing Co., 4201 W. Petersen Av., Chicago 46, Ill. Bastian Mfg. Co., W. B., 2117 Violet St., Los Angeles 21,

Calif Bastian-Morley Co., Inc., 208 Truesdell Ave., La Porte, Ind. Bateman Foundry & Machine Co., Mineral Wells, Tex. Bath Co., Cyril, 32272 Aurora Rd., Solon, O.

Bayley Blower Co., 1817 S. 66th St., Milwaukee 14, Wis. Beach-Russ Co., 420 Lexington Ave., New York 17, N. Y. Bead Chain Mfg. Co., 105 Mountain Grove St., Bridgeport 5,

Bearlee Products Co., 1255 S. Monroe Ave., Green Bay, Wis. Bear Mfg. Co., Industrial Div., 2030 Fifth Av., Rock Island, Ill. Beckett Corp., R. W., 38251 Cleveland Rd., (Route U. S. 20),

Elyria, Ohio.

Beckley Perforating Co., 305 North Av., Garwood, N. J.

Beetle Plastics Corp., Carl N., 192 Airport Rd., Fall River,

Belco Industries, Inc., 3830 Olive St., St. Louis 8, Mo. Belco Industries, Inc., 3830 Olive St., St. Louis 8, Mo. Belden Machine Co., 103 Maltby St., New Haven 13, Conn. Bell Engineering & Supply Co., Three Rivers, Mich. Bell Machine Specialties, 4813 Tremont Ave., Trevose, Pa. Belmetals Mfg. Co., Inc., 1300 Old County Rd., Belmont, Calif. Belmont Smelting & Refining Works, Inc., 330 Belmont Av., Brooklyn 7, N. Y.

Belt-Ice Corp., 3400—16th, W., Seattle, Wash.
Bemis Bro. Bag Co., 408 Pine St., St. Louis 2, Mo.
Benchmaster Mfg. Co., 1835 W. Rosecrans, Gardena, Calif.
Bendix International Div., Bendix Aviation Corp., Export Sales &
Service, 205 E. 42nd St., New York 17, N. Y.

Bendix-Westinghouse Automotive Air Brake Co., 950 E. Vir-

Bennix-Westingnouse Automotive Air Brake Co., 950 E. Virginia St., Evansville, Ind.
Benjamin Air Rifle Co., 1527 S. 8th St., St. Louis 4, Mo.
Benner-Nawman, Inc., 3421 Hollis, Oakland, Calif.
Bennett-Ireland, Inc., 11 Exchange St., Norwich, N. Y.
Benson Co., Inc., Alex R., Middle Settlement Rd., New Hartford,

Berger Bros. Co., 229-237 Arch St., Philadelphia 6, Pa.
Berger Div. of Republic Steel Corp., 1038 Bleden Ave., N. E.,
Canton 5, Ohio.
Bergman Tool Mfg. Co., Inc., 1573 Niagara, Buffalo, N. Y.
Berko Electric Mfg. Corp., 212-40 Jamaica Ave., Queens Village

Berkroy Products Co., 1171 E. 32nd St., Los Angeles 11, Calif. Berns Air King Corp., 3050 N. Rockwell, Chicago 18, III. Bernz Co., Otto., 740 Driving Park, Rochester 13, N. Y. Bertram Co., Harvey P., 2225 Bogen, Cincinnati 22, O. Bertram Mfg. Co., 230 E. Ohio St., Chicago, Ill.

Bertsch & Co., Church St., Cambridge City, Ind.

Besser Furnace and Air Conditioning Corp., 754 Clement Ave.,
Charlotte, N. C.

Bethendale Corp., 24040 Lakeland Blvd., Euclid, O.

Bethlehem Foundry & Machine Co., 225 W. Second St., Beth-

lehem, Pa Bethlehem Steel Co., 701 E. Third St., Bethlehem, Pa.

Better Engineered Controls, 1822 S. Burlington Ave., Los Angeles 6, Calif.
Betz Div., Bohn Alaminum and Brass Corp., Danville, Ill.
Beverly Shear Mfg. Co., The, 3020 W. 111th St., Chicago 43,

Bica Co., 1170 N. State St., Girard, Ohio, Biersach & Niedermeyer Co., 1937 N. Hubbard St., Milwaukee 12, Wis

12, Wis.

Big Joe Mfg. Co., Brown Drive, Wisconsin Dells, Wis.
Bingham-Harbrand Corp., 1060 Post St., Toledo 6, O.
Binks Mfg. Co., 3114 Carroll Av., Chicago 12, Ill.
Birchwood Chemical Co., 4500 W. 44th St., Minneapolis, Minn.
Bird & Son, Inc., East Walpole, Mass.
Birks Mfg. Co., 809 Hanover Rd., Meriden, Conn.
Bishop Co., R. H., 14 E. Washington St., Champaign, Ill.
Black & Decker Mfg. Co., Pennsylvania Ave., Towson 4, Md.
Black Mfg. Co., 403 Penn St., Baltimore 30, Md.
Blackmer Pump Co., 1809 Century Ave., S. W., Grand Rapids, Mich.

Mich.

Black, Sivalls & Bryson, Inc., 7500 E. 12th St., Kansas City 26, Mo.

Blissfield Mfg. Co., Blissfield, Mich.
Blue-Ray Gas Burner Co., 1305 E. Vernor Highway, Detroit 7, Mich

Blue Ridge Glass Div. of American-Saint Gobain Corp., Kingsport, Tenn.

port, Tenn.
Blue Ridge Talc Co., Inc., Henry, Va.
Bock Corp., 110 S. Dickinson St., Madison 3, Wis.
Bodine Electric Co., 2500 W. Bradley Pl., Chicago 18, Ill.
Bogene, Inc., 286 Fifth Ave., New York 1, N. Y.
Bohn Aluminum & Brass Corp., Detroit 26, Mich.
Boker & Co., Inc., H., 101 Duane St., New York 7, N. Y.
Bonair Div., Peerless Products Co., 23 St. & Sedgley Ave.,
Philadelphia 32, Pa.
Bonaell Co. Inc. William L., 78 Fair St., Newman, Ga.

Bonnell Co., Inc., William L., 78 Fair St., Newman, Ga. Bonney Forge & Tool Works, 2400 Rockhill Rd., Alliance, O.

Books Co., C. D., 1618 Sunfield, St., Madison 4, Wis. Boosey Mfg. Co., Norman, 5281 Avery, Detroit 8, Mich. Bostitch, Briggs Drive, East Greenwich, R. I.

Boston Machine Works Co., 7 Willow St., Lynn, Mass. Botfield Refractories Co., Swanson & Clymer Sts., Philadelphia

Bovee Furnace Works, 827 Commercial, Waterloo, Iowa. Bowen Water Heater Div., Handling Equipment Mfg. Corp., Wixom, Mich.

Bowlby Air Devices Co., 300 W. Indianapolis, Wichita, Kans. Bowles Co., A. M., P. O. Box 7508, Houston 7, Tex. Bowman Products Co., 850 E. 72nd St., Cleveland, O. Bowman Steel Corp., P. O. Box 2129, Pittsburgh 30, Pa. Bowser, Inc., Incineration Div., Cairo, Ill. Bowser, Inc., Incineration Div., Cairo, Ill.
Boyertown Auto Body Works, Inc., Boyertown, Pa.
Braden Mig. Co., Inc., 431 N. 14th St., Terre Haute, Ind.
Brasco Mig. Co., 152nd & Commercial Av., Harvey, Ill.
Brass & Copper Tube Div., Triangle Conduit & Cable Co., Inc.,
New Brunswick, N. J. New Brunswick, N. J.
Brauer Supply Co., 2100 Washington Ave., St. Louis 3, Mo.
Breese Burners, Inc., Sales and Appliance Engineering Div., 2450
N. 32nd St., Milwaukee 45, Wis.
Breidert Co., G. C., P. O. Box 1190, San Fernando, Calif. Bremil Mfg. Co., 1020 Holland St., Erie, Pa. Brennen, Bucci & Weber, Inc., 262 Mott St., New York 12, N. Y. Breuer Electric Mfg. Co., 5100 N. Ravenswood Ave., Chicago 40, III 40, III.

Brisk Metal Products Div., Brisk Waterproofing Co., Inc., 720 Grand Ave., Ridgefield, N. J.

Bristol Co., P.O. Box 1790, Waterbury 20, Conn.

Bristol Metal Working Equipment Co., East Hartford, Conn.

Broan Mfg. Co., Inc., P. O. Box 140, Hartford, Wis.

Bronson Fan Mfg. Corp., 4560 Worth St., Los Angeles, Calif.

Brook Motor Corp., 3302-04 W. Peterson Ave., Chicago 45, III Brookside Corp., McCordsville, Ind. Brown-Brockmeyer Co., Inc., 1000 S. Smithville Rd., Dayton 1, Brown, Gene, 316 Senisa Dr., San Antonio, Tex. Browning Mfg. Co., Inc., Central Ave., Main & Chester Sts., Maysville, Ky. Brown Products Corp., 1090 Springfield Rd., Union, N. J. Brulin & Co., Inc., 2939 Columbia Ave., Indianapolis, Ind. Brumme Mfg. Co., 609 Freeman St., Topeka, Kans. Brundage Co., 500 N. Park St., Kalamazoo 11, Mich. Brunner Div. of Dunham-Bush Inc., 179 South St., West Hartford, Conn. Brush Nail Expansion Bolt Co., Greenwich, Conn. Bryant Industrial Products Corp., 17700 Miles Ave., Cleveland 28. O. Bryant Mfg. Co., 2020 Montcalm, Indianapolis, Ind. Buchanan Electric Products Corp., 226 U.S. 22, Hillside, N. J. Buckeye Mfg. Inc., 897 Ingleside, Columbus 8, Ohio.
Buckeye Water Heater Co., 6901 Quincy Ave., Cleveland 4, Ohio Budlew Products Co., 3535 W. Cortland St., Chicago 47, Ill. Buensod-Stacey, Inc., 45 W. 18th St., New York 11, N. Y. Buffalo Forge Co., 497 Broadway, Buffalo, N. Y. Bulldog Div., Gregory Industries, Inc., 102-10 Toledo Ave. Bundy Tubing Co., 8109 B. Jefferson Ave., Detroit 14, Mich. Bunker Hill Co., Sales & Fabrication Div., 660 Market St., San Francisco 4, Calif. San Francisco 4, Calif.
Burdett Mfg. Co., 4920 S. Monitor, Chicago, Ill.
Burgess Thomas Co., 26 Benson St., Bloomfield, N. J.
Burgess Vibrocrafters, Inc., Grayslake, Ill.
Burke and Co., 2902 Hyde Park Blvd., Los Angeles 43, Calif. Burnett Jr., Inc., J. F., 928 Jefferson Ave., Rochester 11, N. Y. Burnham Corp., Irvington, N. Y. Burnham Corp., Warm Air & Cooling Div., P.O. Box 148, Belle Vernon, Pa. Burn O Matic Gas Burner Co., 212 N. 1st St., Minneapolis, Minn. Burn-Rite Products Co., 354 Saw Mill River Rd., Yonkers 2, Burns Machinery Co., F. W., 1730 W. North Av., Milwaukee 5. Wis. Burt Mfg. Co., 38 E. South St., Akron 11, Ohio. By-Buk Co., 4314 W. Pico Blvd., Los Angeles 19, Calif. Byers Co., A. M., Clark Bldg., Pittsburgh 22, Pa.

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C. & H. Air Conditioning Fan Co., Inc., 1603 DeKalb Ave., N. E. Atlanta 6, Ga.
C.L.B. Co., 1917 Portsmouth, P. O. Box 6031, Houston 6, Tex. C W R Mfg. Co., P.O. Box 428, Morro Bay, Calif. Cabot, Inc., Samuel, 141 Milk St., Boston 9, Mass. Cain Mfg. Inc., 1111 N. 5th Ave., Birmingham, Ala. Calbar Paint & Varnish Co., 2612 N. Martha St., Philadelphia 25, Pa.
Calcinator Corp., 28th & Water, Bay City, Mich.
Calculator Specialties Co., 122 S. Michigan Ave., Chicago 3, Ill. Calgon Co., Div. of Hagan Chemicals & Controls, Inc., Hagan Bldg., Pittsburgh 30, Pa.

Cambridge Filter Corp., 738 E. Erie Blvd., Syracuse 1, N.Y. Camlor Fastener Corp., 22 Spring Valley Rd., Paramus, N. J. Campbell Co., E. K., 1809 Manchester Ave., Kansas City 26, Campbell Heating Co., 3121 Dean Av., Des Moines 17, Iowa. Campbell Mfg. Co., Inc., 1345 Plowman Ave., Dallas 3, Tex. Campbell Stainless Products Co., 33 Murtland Ave., Washington. Pa Campco Div., Chicago Molded Products Corp., 2734 N. Normandy Ave., Chicago 35, Ill. Cam-StaT Inc., Div. Paul Henry Co., 11833 W. Olympic Blvd., Los Angeles 64, Calif.
Can Arm Corp., P. O. 156, Champlain, N. Y.
Cannelton Sewer Pipe Co., Fourth & Washington Sts., Cannelton, Ind Canton Stoker Corp., 507 Andrews Pl., S. W., Canton 1, Ohio. Capac Mfg. Corp., P. O. Box 186, Capac, Mich. Capewell Mfg. Co., 60 Governor St., Hartford, Conn. Carajon Chemical Co., Inc., 428 W. Main St., Fremont, Mich. Carboline Co., 32 Hanley Ind. Court, St. Louis 17, Mo. Carey Electronic Engineering Co., Metal Wool Div., 1880 Clifton Ave., Springfield, O. Carey Míg. Co., Philip, Lockland, Cincinnati 15, Ohio. Carlin Co., The, 912 Silas Deane Highway, Wethersfield 9, Conn Carlon Products, Chamberlin Rd., P.O. Box 133, Aurora, O. Carlson Co., Inc., A. B., 349 Woodlawn Ave., Aurora, Ill. Carnes Corp., S. Main St., Verona, Wis. Carolina Aniline & Extract Co., Inc., P. O. 2386, Charlotte, N. C. Carolina Blower Co., Inc., 428-436 Morehead Ave., Greensboro, N. C.
Carpenter Heating & Air Conditioning Co., 2135 St. Clair Ave.,
Cleveland 14, Ohio.
Carpenter Steel Co., Alloy Tube Div., Union, N. J. Carr Fastener Co., Div. United-Carr Fastener Corp., 31 Ames St., Cambridge 42, Mass. Carrier Corp., Carrier Parkway, Syracuse 1, N. Y. Carter Paint Co., Inc., 310 N. Main St., Liberty, Ind. Cartier & Sons Co., M. N., 275 Canal St., Providence 3, R. I. Cary Mfg. Co., Waupaca, Wis.
Cash Co., A. W., P. O. Box 551, Decatur, Ill.
Cavalier Corp., Electric Heating Div., 343 W. First St., Chattanooga 2, Ten. tanooga 2, 1enn. Ceilcote, Inc., 4832 Ridge Rd., Cleveland, Ohio. Ceilheat, Inc., 5212 Homberg Dr., Knoxville, Tenn. Celanese Corp. of America, P. O. Box 1414, Charlotte, N.C. Celotex Corp., 120 S. LaSalle St., Chicago 3, Ill. Cemco Controls Co., 2005 E. Main, Columbus, O. Cemenstone Corp., Neville Island, Pittsburgh 25, Pa. Central Furnace & Stove Repair Co., 3937 Olive St., St. Louis 8. Mo. Central Heating Service, 3905 N. Keenland, Peoria, Ill. Central Mfg. Co., 1420 N. Rice Ave., Houston, Tex. Central States Mfg. Co., Inc., 1200 S. Summit, Arkansas City, Kans Central Steel & Wire Co., 3000 W. 51st St., Chicago, Ill. Central West Machinery Co., 335 S. Western, Chicago, Ill. Century Electric Co., 1806 Pine St., St. Louis 3, Mo. Century Engineering Corp., 401 Third St., S. E., Cedar Rapids, Century Fan & Ventilator Co., Inc., 43 Cedar St., Stamford, Conn. Certain-teed Products Corp., 120 E. Lancaster Ave., Ardmore, Pa. Chain Belt Co., 4618 W. Greenfield Ave., Milwaukee 1, Wis. Chalmers Oil Burner Co., 312 Lumber Exchange Bldg., Minneapolis 1, Minn. Chamberlin Co. of America, 1254 Labrosse, Detroit 32, Mich. Champion Blower & Forge Co., Harrisburg Av., & Charlotte St., Lancaster, Pa. Champion Bronze Powder & Paint Co., 2101 N. Elston Ave., Chicago, Ill. Champion DeArment Tool Co., Meadville, Pa Champion Furnace Pipe Co., 120 Morton St., P. O. Box 957, Peoria, Ill. Char-Gale Mfg. Co., R. 2, Anoka, Minn. Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn. Chase Mfg. Co., 329 W. Washington, Pasadena, Calif. Chase Products, Inc., 20th St. & Gardner Rd., Broadview, Ill. Chattanooga Royal Co., First and Delmar Sts., Chattanooga 6, Cheesman-Elliot Co., Inc., 639 Kent Av., Brooklyn 11, N. Y Chelsea Fan & Blower Co., Inc., 639 South Ave., Plainfield, N. J. Chemetron Corp., 840 N. Michigan Ave., Chicago 11, Ill. Chemical Coatings & Engineering Co., Inc., 221 Brooke St., Media, Pa.

Caloroil Burner Corp., 850 Windsor St., Hartford 5, Conn.

Chemical Sales Div., Firestone Plastics Co., Pottstown, Pa. Chemical Solvent Co., 3005 N. 16th St., Birmingham, Ala. Chemold Co., 2000 Colorado Ave., Santa Monica, Calif. Cheney Flashing Co., 623 Prospect St., Trenton 5, N. J. Chester Hoist Div., National Screw & Mfg. Co., Lisbon, O. Chevrolet Motor Div., General Motors Corp., Detroit 2, Mich. Chicago Blower Corp., 9867 Pacific Ave., Franklin Park, Ill. Chicago Die Casting Mfg. Co., 2510-14 Monroe St., Chicago 12. Ill. 12, III. Chicago Expansion Bolt Co., 1338 W. Concord Pl., Chicago 22,

Chicago Metal Mfg. Co., 3724 S. Rockwell St., Chicago 32, Ill. Chicago Perforating Co., 2445 W. 24th Pl., Chicago 8, Ill. Chicago Pneumatic Tool Co., 6 E. 44th St., New York 17, N. Y. Chicago Rawhide Mfg. Co., 1301 Elston Av., Chicago 22, Ill. Chicago Rivet & Machine Co., 930 S. 25th Ave., Bellwood, Ill. Chicago Screw Co. Div. Standard Screw Co., 2701 Washington Blvd., Bellwood, Ill.

Chicago Smelting & Refining Corp., 3701 S. Kedzie Ave., Chicago

Chicago Steel Furnace Co., 9326 S. Anthony Ave., Chicago 17, Chicago Tank Lining Inc., 5007 W. Jackson, Chicago 44, Ill.

Chicago Tank Lining Inc., 5007 W. Jackson, Chicago 44, Ill. Chicago Tramrail Co., 1330 S. Kostner Ave., Chicago 30, Ill. Chicopee Mills, Inc., 47 Worth St., New York 13, N. Y. Chimney Sales Corp., 1317 F St., N. W., Washington 4, D. C. Chisholm-Moore Hoist Div., Columbus McKinnon Chain Corp., Fremont Av., Tonawanda, N. Y. Choldrum Mfg. Corp., 331 East St., New Haven, Conn. Cincinnati Elbow Co., 4730 Madison Rd., Cincinnati 27, O. Cincinnati Shaper Co., P.O. Box 111, Cincinnati 11, O. Cincinnati Stamping & Furnace Co., 28 W. McMicken Ave. Cincinnati Stamping & Furnace Co., 28 W. McMicken Ave., Cincinnati 10, Ohio.

Circle-Air Industries, Inc., 244 Herkimer St., Brooklyn 16, N. Y. Circle Equipment Co., 44 S. Senate Ave., Indianapolis, Ind. Cirklair Products Div., Folsom Co., Inc., 3104 Oak Lane, Dallas 26, Texas.

City Chemical Corp., 132 W. 22nd St., New York 11, N. Y. Clarage Fan Co., North & Porter Sts., Kalamazoo 16, Mich. Clark Bros. Bolt Co., Milldale, Conn.
Clark Controller Co., 1146 E. 152 St., Cleveland 10, Ohio.

Clark-Cooper Co., Inc., Palmyra (Burl. County), N. J.

Clauss Cutlery Co., Fremont, O. Clay Equipment Corp., Cedar Falls, Iowa. Clayton & Lambert Mfg. Co., Louisville Div., 1707 Dixie Hwy., Louisville 10, Ky. Clemson Bros., Inc., Middletown, N. Y.

Cleveland Crane & Engineering Co., 5866 E. 283rd St., Wickliffe. Ohio Cleveland Heater Co., 2310 Superior Ave., N. E., Cleveland 14,

Ohio Cleveland Humidifier Co., 7802 Wade Park Av., Cleveland 3, Ohio.

Cleveland Punch & Shear Works Co., E. 40th & St. Clair Av., Cleveland 14, Ohio.

Cleveland Register & Grille Mfg. Co., 3188 E. 80th, Cleveland, O. Clinton Metallic Paint Co., Clinton, N. Y.

Cobell Industries, Inc., 600 Wilhite, Cleburne, Tex. Cobra Metal Hose Div., DK Mfg. Co., 5059 S. Kedzie, Chicago, 111

Cody Co., F. C., 2045 W. 63rd St., Chicago, Ill. Coleman Co., Everett, Mass.

Coleman Co., Inc., St. Francis & Second St., Wichita 1, Kans. Cole-Sewell Engineering Co., 2288 University Av., St. Paul

Collins Machinery Corp., 5474 Alhambra Ave., Los Angeles 32, Calif.

Colonial Alloys Co., Ridge Ave., & Crawford, Philadelphia, Pa. Colonial Plastics Mfg. Co., Subsidiary Van Dorn Iron Works Co., 2685 E. 79th St., Cleveland, O. Colt Ventilation of America, Inc., 4652 Hollywood Blvd.,

Los Angeles 27, Calif.

Columbia Buford Corp., 36 Bridge St., New York, N. Y. Columbia Burner Co., 729 Ewing St., Toledo 7, Ohio. Columbia Cement Co., Inc., 150 Ingraham St., Brooklyn, N. Y. Columbia Matic W. Corp. Columbia-Matic "8" Corp., Div. of Columbia Mills, Inc., Syracuse 1, N. Y.

Columbian Vise & Mfg. Co., 9021 Bessemer Ave., Cleveland 4, O.

Columbia Specialty Co., Inc., 4925 Bradley Blvd., Chevy Chase 15, Md.

Columbus Electric Mfg. Co., 2005 E. Main St., Columbus 5, O. Columbus Heating & Ventilating Co., 182 N. Yale Av., Columbus 16, Ohio.

Combustion Control Div., Electronics Corp. of America, 1 Memorial Dr., Cambridge 42, Mass. Combustion Equipment Co., 1202 15th St., Moline, Ill.

Comfort Products Inc., 440 Hillburn Dr., P. O. Box 8568. Dallas 16, Tex.
Commercialaire Corp. of America, 840 E. 98th St., Brooklyn

36, N. Y.
Commercial Filters Corp., 2 Main St., Melrose 76, Mass.
Commercial Machine & Welding Co., R. D. 3, N. Wooster Ave., Dover, O.

Commercial Plastics Co., 943 George St., Chicago 14, Ill. Commercial Shearing & Stamping Co., P. O. Box 239, Youngstown 1, Ohio.

Commonwealth Brass Corp., 5781-5835 Commonwealth Av., Detroit 8. Mich. Commonwealth Co., 2127 W. Commonwealth Av., Alhambra,

Canil. Compton Shear Co., W. H., 314 Camden St., Newark 3, N. J. Comstock-Castle Stove Co., 731 S. Front St., Quincy, Ill. Conco Engineering Works, Heating and Air Conditioning Div., Mendota, Ill. Cond-Air Div., Elliott Engineering Co., 2800 E. Century Blvd.,

Lynwood, Calif.

Condensate Siphon Jet Corp., 779 E. 214th St., New York, N.Y. Condensation Engineering Corp., 3511 W. Potomac Ave., Chicago

Condenser Service & Engineering Co., Inc., 150 Observer Highway, Hoboken, N. J.
Congress Drives, Div. Tann Corp., 3750 E. Outer Dr., Detroit

34, Mich. Conner Mfg. Co., 828 S. 17th St., Louisville, Ky. Connor Engineering Corp., Shelter Rock Lane, Danbury, Conn. Consolidated General Products, Inc., 24th and Nicholson Sts.,

Houston 8, Tex.
Consolidated Industries, Inc., By-Pass 52, P. O. Box 178,

Lafayette, Ind. Consolidated Marketing Corp., 1017 Packard Bldg., Philadelphia 2, Pa.

Construction Specialties, Inc., 55 Winans Ave., Cranford, N. J. Continental Air Filters, Inc., P. O. Box 1647, Louisville 1, Ky. Continental Coatings Corp., 17706 Miles Ave., Cleveland 28, O. Continental Electric Equipment Co., Box 1055, 205 W. 4th St., Cincinnati 1, O.

Continental Instrument Co., 1530 St. Clair Ave., Cleveland 14, Ohio

Continental Mfg. Co., 712 S. 23rd Ave., Phoenix, Ariz. Continental Products Co., 1150 E. 222nd St., Euclid 17, Ohio. Continental Radiant Glass Heating Corp., Four W. 40th St., New York 16, N. Y.

Continental Screw Co., 459 Mt. Pleasant St., New Bedford, Mass. Continental Tapes, Cayce, S. C. Controlair Mfg. Co., 1932 S. Compton Av., Los Angeles 11,

Calif Cook Co., Loren, 227 Depot St., Berea, Ohio. Coolenheat, Inc., 459 Amboy Ave., Woodbridge, N. J. Coolerator Div., McGraw-Edison Co., 704 N. Clark St., Albion,

Cool-Ette, Inc., 7535 W. 8 Mile Rd., Detroit 21, Mich.

Cool-Ette, Inc., 7535 W. 8 Mile Rd., Detroit 21, Mich. Cooper Stoker Co., 55 Caledonia St., Pittsfield, Mass. Coopers Creek Chemical Corp., West Conshohocken, Pa. Copeland Refrigeration Corp., Sidney, Ohio. Copperweld Steel Co., Wire and Cable Div., Glassport, Pa. Coppus Engineering Corp., 344 Park Ave., Worcester 10, Mass. Corbin Div., P & F, American Hardware Corp., 102 Washington St., New Britain, Conn.

St., New Britain, Conn.
Corbman Bros., Inc., 25th & York St., Philadelphia, Pa.
Cordo Chemical Corp., 34 Smith St., Norwalk, Conn.
Corite Products Inc., 6553 W. George St., Chicago 34, Ill.
Coroaire Heater Corp., 1422 Euclid Ave., Cleveland 13, O.
Corrosite Corp., 64 S. 6 St., Brooklyn 11, N. Y.
Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
Coughlan Co., G. N., West Orange, N. J.
Cox Mfg. Co., Ridgeville, Ind.
Cramer Controls Corp., Box 36, Centerbrook, Conn.
Crane Co., 836 S. Michigan Av., Chicago 5, Ill.
Creamer Industries, Inc., Maxwell Steel Div., P. O. Drawer 230,
Fort Worth 1, Tex.

Fort Worth 1, Tex.

Crescent Tool Co., 230 Harrison St., Jamestown, N. Y.

Cristy Specialty Corp., Worcester, Mass. Cromley's, Lewisburg, Pa.

Croname, Inc., 6201 Howard St., Chicago 48, Ill. Cronstroms Mfg. Inc., 4225 Hiawatha Ave., Minneapolis, Minn. Cross Perforated Metals, National-Standard Co., 160-178 Dundaff St., Carbondale, Pa.

Crown Controls Co., Inc., 40 S. Washington St., New Bremen, Ohio.

Crown Engineering Corp., Locust St., Keyport, N. J. Crown Home Equipment Co., 1410 N. Delaware Ave., Philadelphia 25, Pa. Crucible Steel Co. of America, P. O. Box 88, Pittsburgh 30, Pa.

Cullen-Friestedt Co., 1303 S. Kilbourn Ave., Chicago 23, Ill.
Cuno Engineering Corp., 76 S. Vine St., Meriden, Conn.
Cummins Portable Tools, Div. of John Oster Mfg. Co., 5055 N.
Lydell Ave., Milwaukee 17, Wis.
Curtis Mfg. Co., Refrigeration Div., 1946 Kienlen Av., St. Louis

20, Mo.

Custom-Aire Products Div., Pacific Industries, Inc., 600 Indiana St., San Francisco, Calif.

St., San Francisco, Calir.
Custom Industries Mfg., Inc., 1406 Parkman Rd., Warren, O.
Custom-Temp Corp., Liberty, N. Y.
Cutler-Hammer, Inc., 430 N. 12th St., Milwaukee 1, Wis.
Cuyahoga Products Corp., Subsidiary Republic Industrial Corp.,
10252 Berea Road, Cleveland 2, Ohio.

D & R Plastic Welders, Inc., Box J, Hazardville, Conn. Dahlstrom Machine Works, 4227 W. Belmont Ave., Chicago 41, Dahlstrom Metallic Door Co., S. E. Cor. E. Second & Buffalo

Sts., Jamestown, N. Y.
Dalsin Metal Products, 3506 Bloomington Ave., Minneapolis 7, Minn.

Dalzen Mfg. Co., 4600 Bree Rd., St. Clair, Mich. Damascus Steel Products Corp., 2215 Kishwaukee St., Rockford. III.

Damascus Tube Co., Greenville, Pa. Damp-Vent Co., Box 203, Bettendorf, Ia.

Dana Fan & Blower Corp., 49 Central Ave., Cincinnati 2, O. Daniels Mfg. Co., Inc., Sam, Daniels Rd., Hardwick, Vt.

Danzer Metal Works Co., Box 128, Hagerstown, Md. Davidson Enamel Products, Inc., 1100 E. Kibby, Lima, O. Davidson Hyduty Roof Fan Co., 213 California St., Newton 58,

Mass. Davis Regulator Co., 2546 S. Washtenaw Av., Chicago 8, Ill. Davis & Son Machine Works, 1209 E. Nadeau St., Los Angeles 1, Calif.

Day Co., 810 Third Av., N. E., Minneapolis 13, Minn.

Day & Night Mfg. Co., 855 Anaheim-Puente Rd., La Puente, Calif.
 Daystrom-Weston Sales Div., Daystrom Inc., 614 Frelinghuysen Ave., Newark 12, N. J.
 Dayton Industrial Products Co., 2001 Janice Ave., Melrose Park,

Dayton Rogers Mfg. Co., 2830 13th Av., S. Minneapolis 7, Minn. Deansteel Products, 111 Merchants St., San Antonio 5, Tex. Dearborn Chemical Co., Merchandise Mart Plaza, Chicago 54,

Dearborn Stove Co., 1700 W. Commerce St., Dallas 8, Texas. Debevoise Co., 74 20th St., Brooklyn 32, N. Y. De Bothezat Fans Div., American Machine and Metals, Inc., East Moline, Ill.

Deering Engineering Co., 930 N. W. 13th Ave., Fort Lauderdale,

Defender Instrument and Regulator Co., Boody, Ill.
Delamater Equipment Co., Inc., 903 22nd St., Rockford, Ill.
Delavan Mfg. Co., Grand Ave. & Fourth St., West Des Moines,

Delco Appliance Div., General Motors Corp., P. O. Box 230, Rochester 1, N. Y. Delco Products Div., General Motors Corp., 329 E. First St.,

Dayton, Ohio.
Delta Co., The, 333 W. 24th Pl., Chicago 16, Ill.
Delta Power Tool Div., Rockwell Mfg. Co., 400 N. Lexington

Ave., Pittsburgh 8, Pa.

DeLuxe Oil Burner Co., 2121 First Av., Seattle, Wash.

Demuth & Sons, Inc., Charles, 245 Elm Pl. Mineola, L. I., N. Y.

Denbo Engineering and Sales Co., Inc., 3301 Martindale Ave.,

Indianapolis 18, Ind.

Deniston Co., 4836 S. Western Ave., Chicago 9, Ill. Denver Fire Clay Co., 3033 Blake St., Denver 17, Colo

Design Engineers, 214 S. Church St., Rockford, Ill.

Designers Metal Corp., 650 Hoffman St., Hammond, Ind. Desmond-Stephan Mfg. Co., Urbana, O. Desomatic Products, Inc., 1109 W. Broad St., Falls Church, Va. Detroit Blower Corp., 9867 Pacific Ave., Franklin Park, Ill. Detroit Controls Div. of American-Standard, 5900 Trumbull Ave.,

Detroit 8, Mich. Detroit Hoist & Machine Co., 8202 Morrow St., Detroit 11,

Detroit Moulding Div., L. A. Young Spring & Wire Corp., 9210 Russell St., Detroit 11, Mich.

Detroit Safety Furnace Pipe Co., 5960 Second Blvd., Detroit 2,

Detroit Stamping Co., 350 Midland Ave., Detroit 3, Mich. Detroit Stoker Co., 1510 E. First St., Monroe, Mich.

Detroit Surfacing Machine Co., 1333 E. Eight Mile Rd., Detroit 20, Mich.

Deutsch Controls Corp., P. O. Box 61216, Los Angeles 16, Calif. DeVilbiss Metal Fabricators Co., 5741 Russell St., Detroit 11, Mich.

Devine Mfg. Co., J. P., Div. of H. K. Porter Co., Inc., 1932 Oliver Bldg., Pittsburgh 22, Pa. Dewey Gas Furnace Co., 100 E. Baltimore, Detroit 2, Mich.

Dialatemp, Inc., 706 Chestnut St., St. Louis, Mo. Diamond Castings Co., Inc., Terra Cotta Rd., Johnsonburg, Pa. Diamond Machine Tool Corp., 5111 Coffman-Pico Rd., Pico-Rivera, Calif.

Rivera, Calif.
Diamond Mfg. Co., P. O. Box 34, Wyoming, Pa.
Diamond Tool and Horseshoe Co., 4702 Grand, Duluth, Minn.
Diceler Div., General Machine & Mfg. Co., Berwick, Pa.
Dicks-Armstrong-Pontius, Inc., 5300 Huberville Ave., Dayton, O.
Dickson Co., 7420 Woodlawn Ave., Chicago 19, Ill.
Dickson Weatherproof Nail Co., P. O. Box 590, Evanston, Ill.
Dieckmann Co., Ferdinand, 1300 Harrison Ave., Cincinnati

22, Ohio.
Diehl Mfg. Co., 1117 Finderne Av., Somerville, N. J.
Dielectric Products Co., Inc., 125 Virginia Ave., Jersey City 5,

Diesel Power, Inc., P. O. Box 72, Greenville, Pa. Disston Div., H. K. Porter Co., Inc., Unruh & Milnor Sts., Philadelphia 35, Pa.

Division Lead Co., 7742 W. 61st Pl., Summit, Ill. Dixie Radiant Electric Heat Corp., 66 Eleventh St., N. E., At-

lanta 9, Ga.

DoALL Co., 254 Laurel Ave., Des Plaines, Ill.

Dockson Corp., 3839 Wabash Av., Detroit 8, Mich.

Dodge Div., Chrysler Corp., 21500 Mound Rd., Detroit 31, Mich.

Dodge Mfg. Corp., 500 S. Union St., Mishawaka, Ind.

Doelger & Kirsten, Inc., 3015 W. Chambers St., Milwaukee 10,

Wis. Doerr Electric Co., Cedarburg, Wis.
Dollinger Corp., 11 Centre Park, Rochester 3, N. Y.
Domestic Mfg. Co., 201 Westlake, N. Seattle 1, Wash.
Donaldson Power Roof Ventilator Co., 2915 Knox St., Los An-

geles 39, Calif. Dongan Electric Mfg. Co., 2981 Franklin St., Detroit 7, Mich.

Donley Bros. Co., 13902 Miles Ave., Cleveland, O.
Dormeyer Industries, 3418 Milwaukee Ave., Chicago 41, Ill.
Dornback Furnace & Foundry Co., 33220 Lakeland Blvd., Eastlake,

Dot-N-Dasher, P. O. Box 668, Creskill, N. J. Dow Chemical Co., Midland, Mich. Dow Corning Corp., Midland, Mich.

Dowagiac Steel Furnace Co., Beeson St., Dowagiac, Mich. Downing Steel Products Co., 2305 S. Smithville, Kettering 20, O. Downs Crane & Hoist Co., 540 W. Vernon Ave., Los Angeles 37, Calif.

Doyle & Roth Mfg. Co., Foot of 23rd St., Brooklyn 32, N. Y. Doyle Vacuum Cleaner Co., 227 Stevens St., S. W., Grand Rapids 2, Mich.

Draco Co., Morris Field, Charlotte, N. C. Dravo Corp., Neville Island, Pittsburgh 25, Pa.
Drayer-Hanson, Div. of National-U. S. Radiator Corp., Box

2215, Terminal Annex, Los Angeles 54, Calif. Dreier Bros., Inc., 7301 Woodlawn Ave., Chicago 19, Ill. Dreis & Krump Mfg. Co., 7404 Loomis Blvd., Chicago 36, Ill. Drico Industrial Corp., 100-8th St., Passaic, N. J. Drying Systems Co., 18121/2 W. Foster Ave., Chicago 40, Ill.

Dry Mfg. Co., Winters, Tex.

Dryomatic Corp., 806 N. Fairfax St., Alexandria, Va. Dualtron Co., 322 Perry Hwy., Pittsburgh 29, Pa.

Ducane Heating Corp., 230 Goffle Road, Hawthorne, N. J. Ducon Co., The, 147 E. 2nd St., Mineola, N. Y. Duc-Pac Inc., Baldwin St., East Longmeadow, Mass.

Dunham-Bush, Inc., 179 South St., West Hartford 10, Conn. Dunton Co., M. W., 7 Goff St., Providence 3, R. I. du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del. Dura Last Products Corp., 160 Thalia St., New Orleans 18, La. Dura-Vent Corp., 1400 W. Ormsby Ave., Louisville 1, Ky.

Durez Plastics Div., Hooker Chemical Corp., 1953 Walck Rd., North Tonawanda, N. Y.

Durkee-Atwood Co., 215 N. E. 7th St., Minneapolis, Minn. Duro-Dyne Corp., Route 110, Farmingdale, N. Y. Duro Metal Products Co., 2649 N. Kildare, Chicago 39, Ill.

Dustender Co., 3619 Pontiac Rd., Ann Arbor, Mich. Dust Suppression & Engineering Co., P. O. Box 67, 120 S. Broadway, Lake Orion, Mich.

Dutch Brand Div., Johns-Manville Corp., 7800 S. Woodlawn Ave., Chicago 19, Ill.

Du Verre, Inc., 374 Delaware Ave., Buffalo, N. Y. Dwyer Mfg. Co., F. W., P. O. Box 373, Michigan City, Ind. Dyfoam Corp., 202 E. Cherry St., New Castle, Pa.

Eagle Chemical Co., Inc., Box 107, Mobile, Ala.
Eagle-Picher Co., American Bldg., Central Pkwy. & Walnut,
Cincinnati 1, Ohio.

Cincinnati I, Ohio.

East Coast Co., 43 Parker Rd., Boston 81 (Wellesley), Mass.

Eastern Industries Inc., 100 Skiff St., Hamden 14, Conn.

Eastern Oil & Equipment Co., 27 Portland St., Portland I, Maine

Eastern Stainless Steel Corp., P. O. Box 1975, Baltimore 3, Md.

Eastern States Paint & Varnish Co., Swanson & Mifflin Sts., Philadelphia 48, Pa.

Eastman Chemical Products, Inc., Subsidiary, Eastman Kodak Co., Kingsport, Tenn.

Easton R. S. Corp., 4907 Farragut Rd., Brooklyn 3, N. Y. Easton Air Filter Co., 2609 E. Larned St., Detroit 7, Mich. Ebco Mfg Co., 265 N. Hamilton Rd., Columbus 13, O. Eckhart Mig. Co., Inc., 931 Lehigh Av., P. O. Box 248, Union, N. I.

N. J. Eclipse Air Brush Co., 390 Park Ave., Newark 7, N. J. Eclipse Fuel Engineering Co., 1100 Buchanan St., Rockford, Ill. Econo-Matic Products Co., Inc., 8851 Mark Twain, Detroit, Mich. Econo Products Co., Div. of Viking Instruments, East Haddam, Conn.

Eddington Metal Specialty Co., 3088 Bristol Pike, Eddington, Pa Eddy Stoker Corp., 700 North Wolf Rd., P. O. Box 68, Wheeling, 111.

Edwards Mfg. Co., Albert Lea, Minn. Efsco Products Co., P. O. Box 154, Eastwood Sta., Syracuse 6. N. Y.

Eisler Engineering Co., 760 S. 13th St., Newark 3, N.

Eisler Engineering Co., 760 S. 13th St., Newark 3, N. J. Electro Tool & Screw Corp., 1800 Broadway, Rockford, Ill. Electrend Products Corp., Subsidiary of St. Joe Machines, Inc., 606 Water St., St. Joseph, Mich. Electrical Components Co., Div. of National Ceramic Co., 500 Southard St., Trenton 2, N. J. Electric Arc, Inc., 152 Jeliff Åv., Newark 8, N. J. Electric Boat Div., General Dynamics Corp., Groton, Conn. Electric Controller & Mfg. Co., 4528 Lee Rd., Cleveland 28, O. Electric Furnace-Man, Inc., 4th & Furnace Sts., Emmaus, Pa. Electric Heating Products Co., 5800 S. Central Ave., Phoenix, Ariz. Ariz.

Electric Machinery Mfg. Co., 800 Central Ave., Minneapolis 13, Minn.

Electric Motors & Specialties, Inc., King and Hamsher Sts., Garrett. Ind.

Electriliving Corp., 4913 College Ave., Indianapolis 5, Ind. Electro-Air Cleaner Co., Inc., Olivia & Sproul Sts., McKees

Rocks, Pa.

Electro Dynamic Div., General Dynamics Corp., 163 Avenue A, Bayonne, N. J.

Electrol Burner Mfg. Co., Inc., 22 Union Av., Rutherford, N.J. Electromode Div. of Commercial Controls Corp., P. O. Box 1052, Rochester 3, N. Y.

Electro-Products Mfg. Co., 8310 N. E. Highway 99, Vancouver, Wash.

Electrovector, Inc., 475 Flushing Ave., Brooklyn, N. Y. Electrovent Fan & Mfg. Co., 812 W. Lake St., Chicago 7, Ill. Electro-Watt Inc., Mercer & Aurora, Seattle 9, Wash.

Elgen Mfg. Corp., 32-49 Gale Ave., Long Island City 1, N. Y. Elgo Shutter & Mfg. Co., 2738 W. Warren Av., Detroit 8, Mich. Elliott Co., Crocker-Wheeler Plant, Div. of Carrier Corp., Jean-

Ellison Draft Gage Co., Inc., 548 W. Monroe St., Chicago 6,

Elwell-Parker Elec. Co., 4131 St. Clair, Cleveland 3, Ohio. Embassy Steel Products, Inc., 890 Stanley Ave., Brooklyn 8, N. Y. Emerson Electric Mfg. Co., 8100 Florissant Av., St. Louis 36,

Emerson-Pryne Co., 140 N. Towne Ave., P. O. Box 698, Pomona, Calif.

Emerson Radio & Phonograph Corp., 14th & Coles Sts., Jersey City 2, N. J.

Empire Chemical Products Co., 10 Longworth St., Newark 2,

Empire Metal Co., 820 E. Water St., Syracuse, N. Y.

Empire Stove Co., Belleville, Ill.

Empire Ventilation Equipment Co., 35-39 Vernon Blvd., Long Island City 6, N. Y.
Enderle, Inc., 18td., Frank X, 1715 San Fernando Rd., Los Angeles 65, Calif.

Engelhard Industries Inc., American Platinum and Silver Div., 231 New Jersey Railroad Ave., Newark, N. J. Engelhard Industries Inc., Instrument & Systems Div., 850 Passaic

Ave., East Newark, N. J.

Engel Sheet Metal Equipment, Inc., 8122 N. Reilly Ave., St.

Louis 11, Mo.
Engesser & Co., William L., 9745 E. Rush St., El Monte, Calif.
Engineering Industries Co., Ltd., 15 Brandon Ave., Toronto, Ont., Canada

Englander Co., Inc., Plastics Div., 227 N. Warwick Ave., Baltimore 23, Md.

English Engineering Co., 226 Sycamore St., Abilene, Tex. Engwald Corp., The, 125 Sheridan Blvd., Inwood, L.I., N.Y. Enico Products, 16573 Littefield Av., Detroit, Mich.

Enjay Co., 15 W. 51st St., New York, N. Y.
Erdle Perforating Co., 171 York St., Rochester 11, N. Y.
Ergolyte Mfg. Co., 3627 N. Lawrence St., Philadelphia 40, Pa.
Erickson Specialty Co., 10 Cayuga St., P. O. Box 141, Cohoes, N. Y.

N. Y.

Brie Enameling Co., 1400 W. 20th St., Erie, Pa.

Eriez Mfg. Co., 219 Magnet Dr., Erie, Pa.

Ervite Corp., 4000 W. Ridge Rd., Erie, Pa.

Esslgroth & Co., Box 253, Roselle, N. J.

Essick Mfg. Co., 1950 Santa Fe Av., Los Angeles 21, Calif.

Estwing Mfg. Co., 2647 - 8th, Rockford, Ill.

Etched Products Co., 3901 Queens Blvd., Long Island City 4,

N. Y.

Rudid Corpor to Heist Co., 1366 Checker Pal. Evolid Co.

Euclid Crane & Hoist Co., 1365 Chardon Rd., Euclid 17, Ohio. Eutectic Welding Alloys Corp., 40-40 172nd St., Flushing 58, N. Y.

Evans Corp., George, 121 37th St., Moline, Ill. Evans Corp., George, 121 37th St., Moline. III.

EverHot Heater Co., 5241 Wesson Av., Detroit 10, Mich.

Everhot Products Co., 2059 W. Carroll Av., Chicago 12, III.

Everwarm, Inc., 3600 Pleasant Ridge Rd., Knoxville, Tenn.

Evis Mfg. Co., 5955 N. Rockwell, Chicago, III.

Eward Associates, 515 Second Ave., W., Seattle 99, Wash.

Excelsior Steel Furnace Co., 546 W. Washington Blvd., Chicago

cago 6, Ill. Excelsior Tool & Machine Co., 31st & Ridge Av., East St.

Louis, Ill. Exit-Aire Ventilating Co., 13650 Vaughn St., Pacoima, Calif. Expert Welding Machine Co., 17144 Mt. Elliott St., Detroit,

Extraer, Inc., 1210 Chenevert, Houston 3, Tex. Extremultus, Inc., 405 Lexington Ave., New York 17, N. Y.

F & E Mfg. Co., P.O. Box 727, Fremont, Calif.
Fabricated Products Co., West Newton, Pa.
Fafnir Bearing Co., The, 37 Booth St., New Britain, Conn.
Fairbanks, Morse & Co., 600 S. Michigan Av., Chicago 5, Ill.
Fairmount Tool & Forging Inc., 10611 Quincy Av., Cleveland

Fairway Division, 12085 Dixie St., Detroit 39, Mich. Fallsington Mfg. Co., Fallsington, Pa.
Falstrom Co., 18 Falstrom Court, Passaic, N. J.
Falz Mfg. Co., 1930 St. Anthony Ave., St. Paul, Minn.
Famco Machine Co., 3114 Sheridan Rd., Kenosha, Wis.
Famous Furnace Co., 6420 Woodland Ave., Cleveland 4, Ohio. Fan-Air Co., Dowagiac, Mich. Farr Co., Dowagiac, Mich.
Farr Co., P.O. Box 90187, Airport Sta., Los Angeles 45, Calif.
Farrelloy Co., 1243 N. 26th St., Philadelphia 21, Pa.
Fasco Industries, Inc. 255 N. Union St., Rochester 2, N. Y.
Fastening Devices, Inc., 369 — 50th St., Brooklyn, N. Y.
Fastway Fasteners Inc., 1676 E. 28th St., Lorain, O.
Fayette Mfg. Co., 200 Main St., Morenci, Mich.

Fedders Corp., 58-01 Grand Ave., Maspeth 78, N. Y.
Federal Heating and Cooling Corp., 126 W. Tremont Ave.,
Charlotte, N. C. Federal Machinery Co., 134 Grand St., New York 13, N. Y. Felter Co., John, P. O. Box 7464, Houston 8, Tex. Felters Co., Inc., 210 South St., Boston 11, Mass.

Fenestra Inc., 2250 E. Grand Blvd., Detroit 11, Mich. Fenwal Inc., Ashland, Mass.

Fenway Machine Co., Inc., 3107 N. Broad St., Philadelphia 32, Pa. Fern, Ralph, 1007 Fisk St., Scranton 9, Pa.

Fibreboard Paper Products Corp., 475 Brannan St., San Francisco 19, Calif.

Fidelity Tool Supply, Inc., 309 Vine St., Camden 2, N. J. Field Control Div., H. D. Conkey & Co., Drawer 11, Mendota,

Fieser Co., F. J., 54 W. 21st St., New York 10, N. Y. Filon Plastics Corp., 333 N. Van Ness Ave., Hawthorne, Calif. Filt-R-Ite Co., 1408 W. Harrison St., Chicago 7, Ill. Finger, Joe, 7907 Madison Av., Cleveland 2, Ohio. Fingles Co., Reisterstown Rd. at Elgin Av., Baltimore 17, Md.

Finn & Co., Inc., T. R., Hawthorne, N. J.

Firestone Industrial Products Co., 1200 Firestone Parkway, Akron 17, Ohio. Firestone Plastics Co., Pottstown, Pa. Fisher Brass Foundry and Mfg., 5332 S. Santa Fe Ave., Los Angeles 58, Calif.
Fisher Governor Co., Box 307, Marshalltown, Iowa.
Fisher Skylight, Inc., 186 15th St., Brooklyn, N.Y.
Flagler Corp., The, 19321 Filer Ave., Detroit, Mich. Flanders Filters, Inc., P. O. Box 718, Riverhead, L. I., N. Y. Flashrite, Inc., P. O. Box 573, Cheyenne, Wyo. Flemm Lead Co., Inc., Bradley Av. & School St., Long Island City 1, N. Y. City 1, N. Y.
Flex-Air, Inc., 4273 S. Broadway, Los Angeles 37, Calif.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Flexible Tubing Corp., Guilford, Conn.
Flexonics Corp., 1313 S. Third Ave., Maywood, Ill.
Flintkote Co., 30 Rockefeller Plaza, New York 20, N. Y. Flood Co., Hudson, Ohio.
Floral City Heater Div., United States Air Conditioning Corp., 402 S. Monroe St., Monroe, Mich. Floridin Co., Box 989, Tallahassee, Fla. Fluor Products Co., Div. of the Fluor Corp., Ltd., Air Conditioning & Refrigeration Cooling Towers, P.O. Box 1267, Santa Rosa, Calif. Santa Rosa, Calif.
Fluxolder Products Co., 438 E. Woodbridge St., Detroit 26.
Flynn & Emrich Co., 301 Holliday St., Baltimore 2, Md.
Foamade Industries, 14851 West 11 Mile Rd., Oak Park 37, Mich.
Follansbee Steel Corp., Penn and Main Sts., Follansbee, W. Va.
Folsom Snow Guard Co., Main & Village Sts., Millis, Mass.
Foote Foundry Co., J. B., N. Main St., Fredericktown, Ohio.
Ford Div., Ford Motor Co., P. O. Box 658, Dearborn, Mich.
Forest-Wool Insulation Co., Inc., 215 N. Linden, Marshall, Mich.
Formica Co., 4620 Spring Grove, Cincinnati, O.
Forston Co., Mfr. 2117-19 Judiway, Houston 18, Tex. Forston Co., Mfr., 2117-19 Judiway, Houston 18, Tex.
Fort Valley Fan Co., Fort Valley, Ga.
Forty-Eight Insulations, Inc., Thomas & McGee Sts., Aurora, Fossum Damper Control Co., 995 Arcade St., St. Paul, Minn. Foster Engineering Div., General Controls Co., Warwick Industrial Park, Warwick, R. I. Foxboro Co., 38 Neponset Ave., Foxboro, Mass. Fox Noiseless Hammer Co., 77 Green Hill Rd., Media, Pa. Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa. Fram Corp., Providence 16, R. I. Francer Mfg. & Supply Corp., 4 Franklin St., East Milton 86, Mass. Franck & Fric, Inc., 7917 Rockside Rd., Cleveland 31, O. Franklin Electric Co., Inc., E. Spring St., Bluffton, Ind. Franklin Plastics, Inc., 315 Grant St., Franklin, Pa. Fraser & Johnston Co., 1900 17th St., San Francisco 3, Calif. Frederick Iron & Steel, Inc., Cor. East & Seventh Sts., Frederick, Md. Freed Products Co., 1510 Third Ave., Moline, Ill.

Fresh Air Circulator Co., 3108 Navigation, Houston 3, Texas.

Frey & Co., Frank P., 2634 W. Madison St., Chicago 12, Ill.

Frick Co., W. Main St., Waynesboro, Pa.

Friedrich Refrigerators, Inc., 1117 E. Commerce, San Antonio, Friend-Pike Sheet Metal & Roofing Co., 615 Pearl St., Sioux City, Friez Instrument Div., Bendix Aviation Corp., 1400 Taylor Av., Baltimore 4, Md. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton 1. Ohio. Frigid Coil, Inc., 9860 Rush St., El Monte, Calif. Frigid, Inc., 128-168 Thirty-Second St., Brooklyn 32, N. Y.

Frigid, Inc., 128-168 Thirty-Second St., Brooklyn 32, N. Y. Front Rank Mfg. Co., Div. Gross Aire Mfg. Co., 9416 W. Milton Ave., St. Louis 14, Mo.

Fry Reglet Corp., 6550 Avalon Blvd., Los Angeles 3, Calif. Fuelguard Co., 5643 Dyer St., Dallas 6, Texas.

Fuller Co., H. B., 255 Eagle St., St. Paul 2, Minn.

Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Box 400 Knoxville 1, Tenn.

Furblo Co., Hermansville, Mich.

Purnas Electric Co., Batavia, Ill.

G

Pusion Engineering, 17921 Roseland, Cleveland 12, O.

G. M. Mfg. Co., 134 W. 26 St., New York 1, N. Y.
GMC Truck & Coach Div., General Motors Corp., 660 South Boulevard, E., Pontiac, Mich.
G. & O. Mfg. Co., 138 Winchester Av., New Haven 8, Conn.
G & S Mfg. Co., 2824 E. Washington, Phoenix, Ariz.

Gaffers & Sattler, 8111 W. Beverly Blvd., Los Angeles 48, Calif. Gallaher Co., 4106 Dodge St., Omaha, Nebr. Galvan Mfg. Co., Box 267, New Albany, Ind.
Galvicon Corp., 40 W. 29th St., New York 1, N. Y.
Garden City Fan Co., 801 N. Eighth St., Niles, Mich.
Gardner-Denver Co., Front St., Quincy, Ill.
Garland Mfg. Co., 48 Water St., Saco, Maine
Garman Co., Inc., 1253 Grover, St. Louis 25, Mo. Gary Steel Products Corp., 4400 W. 9th St., Gary, Ind. Gas & Oil Industry Laboratories, Inc., 4 Paine Av., Irvington 11, N. 11, N. J.
Gasoilair Equipment Co., 137 Thompson St., New Haven, Coin.
Gates & Co., Inc., George W., Hempstead Tpke & Lucille Ave.,
Franklin Sq., L. I., N. Y.
Gates Engineering Co., Wilmington 99, Del.
Gates Rubber Co., 999 S. Broadway, Denver 17, Colo.
Gehri Sheet Metal Co., 1117 Tacoma Ave., Tacoma 5, Wash.
Geisel Mfg. Inc., 633 W. Broad, Elyria, Ohio.
Gelber & Sons, Inc., 5806 N. Lincoln Ave., Chicago 45, Ill.
Gem Claw Forming Co., Box 500, Selving O. Gem Clay Forming Co., Box 500, Sebring, O. General Air Conditioning Corp., 4542 E. Dunham St., Los Angeles 23. Calif. General Air Products Corp., 14-40 Factory St., Cedar Grove, N. J. General Appliance Corp., Greenville, Mich. General Automatic Products Corp., 2300 Sinclair Lane, Baltimore, Md. General Blower Co., Inc., 6412 Girard Ave., Philadelphia 31, Pa. General Blower Co., Subsidiary of Ilg Electric Ventilating Co., 8600 Ferris Ave., Morton Grove, Ill. General Bronze Corp., Stewart Ave., Garden City, L. I., N. Y. General Chemical Div., Allied Chemical Corp., 40 Rector St., New York 6, N. Y. General Controls Co., 801 Allen Av., Glendale 1, Calif. General Dynamics Corp., Liquid Carbonic Div., 135 S. LaSalle St., Chicago 3, Ill. General Electric Co., Air Conditioning Dept., Troup Highway, Tyler, Tex. General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N. Y. General Electric Co., Appliance Control Dept., Morrison, Ill. General Electric Co., Capacitor Dept., Hudson Falls, N. Y. General Electric Co., Chemical & Materials Dept., 1 Plastics Ave., Pittsfield, Mass. General Electric Co., Clock and Timer Dept., Ashland, Mass. General Electric Co., Large Lamp Dept., Nela Park, Cleveland 12. Ohio. General Electric Co., Major Appliance Div., Room Air Conditioner Dept., 301 W. Liberty St., Louisville, Ky.
General Electric Co., Metallurgical Products Dept., 11177 E. Eight Mile Rd., Detroit 32, Mich.
General Electric Co., Wiring Devices Dept., 95 Hathaway St., Providence, R. I. General Engineering Co., Bay City, Mich. General Filters, Inc., 43800 Grand River Ave., Novi, Mich. General Fittings Co., 123 Georgia Ave., Providence 5, R. I. General Metals, Inc., 858 Goldsboro St., Greensboro, N. C. General Oil Heating Corp., 322-6 55th St., West New York General Products Co., Fredericksburg, Va. General Scientific Equipment Co., Limekiln Pike & Williams Ave., Philadelphia 50, Pa. General Sheet Metal Works, Inc., Silliman Av. & Ash St., Bridgeport 5, Conn. General Sound Control, Inc., 6711 S. Sepulveda Blvd., Los Angeles 45, Calif.

General Tire & Rubber Co., 1708 Englewood, Akron, O.
General Tire and Rubber Co., 1700 Factory St., Marion, Ind.
General Tire and Rubber Co., Bolta Products Div., Lawrence, Mass General Tire & Rubber Co., Industrial Products Div., Wabash, Gentle-Flo Co., Yellow Springs Rd., Malvern, Pa. Gerett Corp., M. A. 724 W. Winnebago St., Milwaukee 5, Wis. Gerhardt, W. F., 2007 W. Broad St., Richmond 20, Va. Germatrol Corp., 7025 Chaucer St., Pittsburgh 8, Pa. Gerrard & Co., A. J., 1958 Hawthorne Ave., Melrose Park, Ill. Gerstein & Cooper Co., Inc., 1 W. 3rd St., South Boston, Mass Gerwin Industries, Inc., Thermo-Base Div., 214 Spring St., Michigan City, Ind. Gilbert & Barker Mfg. Co., West Springfield, Mass. Gilmore Burners, Inc., 1028 E. 134th St., Gleveland, O. Gisholt Machine Co., 1253 E. Washington Av., Madison 10, Glaser Lead Co., Inc., 31 Wyckoff Av., Brooklyn 37, N. Y. Glas-Kraft, Inc., Mill St., Lonsdale, R. I.

Glatt Gutter Anchors, 6549 N. Nixon, Chicago, Ill.

Glen-Aire Mfg. Co., 601 South East St., Anaheim, Calif. Glenwood Range Co., 330 W. Water St., Taunton, Mass. Glidden Co., 900 Union Commerce Bldg., Cleveland 14, O. Globe Hoist Co., E. Mermaid Lane at Oueen St., Philadelphia 18. Globe Roofing Products Co., Inc., 2207 Schrage Av., Whiting.

Ind.

Goder Incinerator Corp., 13920 S. Western, Blue Island, Ill Goergen-Mackwirth Engineering Co., 813 Sycamore St., Buffalo 12, N. Y. Goethel Sheet Metal Works, Inc., Alfred, 3218 W. Fond du Lac

Av., Milwaukee 10, Wis.
Goldens' Foundry & Machine Co., P. O. Box 96, Columbus, Ga.
Goldsmith Metal Lath Co., 4501 Chickering Ave., Cincinnati

Gold Top Heating, Inc., 923 Oregon Ave., Butte, Mont. Goodfellow Co., Inc., E. D., 496 E. Bodley Ave., Memphis,

Goodrich Chemical Co., B. F., 3135 Euclid Ave., Cleveland 15, O. Goodrich Co., B. F., Sponge Products, 280 Derby Pl., Shelton. Conn. Goodrich Industrial Products Co., B. F., Koroseal Div., Mari-

etta, O.

Goodrich Industrial Products Co., B. F., 500 S. Main St., Akron, O. Goodyear Tire & Rubber Co., Inc., 1144 E. Market St., Akron

16, Ohio.

Gorman-Rupp Industries, Inc., Bellville, O. Goss Gas, Inc., Rt. 8, Glenshaw, Pa.
Governair Corp., 4840 N. Sewell, Oklahoma City 4, Okla.
Graham Mfg. Corp., New England Industrial Center, 152 Second
Ave., Needham Hts. 94, Mass.
Grand Island Furnace & Supply Co., 356 N. Elm St., Grand

Island, Nebr.

Grand Specialties Co., 3101 W. Grand Ave., Chicago 22, Ill. Grantie City Steel Co., 20th & Madison Av., Granite City, Ill. Grant Air Products, P. O. Box 143, Verona, N. J. Gray, G. L., 295 East St., P. O. Box 520, New Haven 3, Conn. Gray Metal Products, Inc., 30 Carleton St., Rochester 3, N. Y. Grayson Controls Div., Robertshaw-Fulton Controls Co., Long Beach 5, Calif.

Great Northern Mfg. Corp., 1056 N. Wood St., Chicago 22, Ill Great Western Steel Co., 2300 W. 58th St., Chicago 36, Ill. Green Colonial Inc., 322 S. W. Third St., Des Moines 6, Iowa. Greene, Tweed & Co., North Wales, Pa.

Green Fire Brick Co., A. P., Mexico, Mo.
Green Fuel Economizer Co., Inc., Beacon, N. Y.
Greenheck Fan and Ventilator Corp., Schofield, Wis.

Greist Mfg. Co., 446 Blake, New Haven 15, Conn. Grinnell Co., Inc., 260 W. Exchange St., Providence 1, R. I. Grob Inc., Grafton, Wis.

Grob Inc., Grafton, Wis.
Gross Furnace Mfg. Co., Inc., 24 Broome St., Salem, Va.
Grove Furnace, Inc., 12262 E. Westminster Ave., P. O. Box 95,
Garden Grove, Calif.
Grove Regulator Co., 6529 Hollis St., Oakland, Calif.
Guard Coatings Corp., 8-05 43rd Ave., Long Island City 1, N. Y.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Guardian Products Corp., 1215 E. 2nd St., Michigan City, Ind.
Gustin-Bacon Mfg. Co., 210 West 10th St., Kansas City 7, Mo.

H. A. Mfg. Co., 1612 W. King St., York, Pa. H-B Instrument Co., American & Bristol Sts., Philadelphia 40. H & N Sheet Metal Fabricating Co., Inc., 205 Missouri Ave., Deer

Lodge, Mont.

Lodge, Mont.

H-P Products, Inc., 510 W. Broad St., Louisville, Ohio.

H-P Tool Mfg. Corp., 124 E. Cumberland St., Philadelphia 25, Pa. Haaser Sales Co., 410 Justice St., Fremont, O.

Haertel Co., Walter, 2840 - 4th Ave., S., Minneapolis, Minn.

Hagan Mfg. Co., P. O. Box 249, Delphos, O.

Hago Products, 1120 Globe Ave., Mountainside, N. J.

Hague & Co., Inc., Alfred, Div. of Lacquer & Chemical Corp., 214 40th St., Brooklyn 32, N. Y.

Halbee Products Co., 387 Mill St., Parma, Mich.

Hall-Neal Furnace Co., 1326 N. Capitol Ave., Indianapolis 7, Ind.

Halstead & Mitchell, Bessemer Bldg., Pittsburgh 22, Pa. Hamlin Co., Inc., 746 Ellis St., San Francisco, Calif. Hammett Electric Co., 2311 Tauromee Ave., Kansas City 2, Kans. Hammond Machinery Builders, Inc., 1694 Douglas Av., Kalama-

zoo, Mich. Hampden Heating Supply, 93 Broad St., Springfield, Mass. Hampton Mfg. Co., Industrial Tape Div., 111 Cedar St., New Rochelle, N. Y. Handley-Brown Co., 2101 Brooklyn Rd., Jackson, Mich.
Handy & Harman, 82 Fulton St., New York 38, N. Y.
Hanovia Lamp Div., Engelhard Industries, Inc., 100 Chestnut St.,
Newark 5, N. J.
Hansen Tool & Die Co., 1531 S. First St., Milwaukee, Wis.
Hansson, Inc., Elof, Acoustical Div., 711 3rd Ave., New York
17, N. Y.
Harden Products 3624 January Ave., Workeld, N. W.

Hardco Products, 3624 Jerusalem Ave., Wantagh, N. Y. Harmond Co., 2114 Woodland, Cleveland, O. Harnischfeger Corp., 4400 W. National Ave., Milwaukee 46,

Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill. Harper Metal Products, 1274 Montgomery Ave., San Bruno, Calif. Harrington & King Perforating Co., Inc., 5649 Fillmore St., Chicago 44, Ill.

Harris Calorific Co., 5501 Cass Av., N. W., Cleveland 2, Ohio. Harris Machinery Co., 501 30th Ave., S. B., Minneapolis 14,

Minn.

Harrison Sheet Steel Co., 4718 W. Fifth Av., Chicago 44, Ill.

Hart & Cooley Mfg. Co., 500 E. Eighth St., Holland, Mich.

Hart Heat Div., Avery Farm Machinery Co., Foot of Leland

St., Peoria 2, Ill.

Hart Mfg. Co., 132 Bartholomew, Hartford 1, Conn.

Hartwell Co., 9035 Venice Blvd., Los Angeles 34, Calif.

Hartzell Propeller Fan Co., Div. Castle Hills Corp., 1025

Roosevelt Av., Piqua, Ohio.

Harvey Aluminum, 19200 S. Western Ave., Torrence, Calif.

Harvey-Hill, Inc., 9492 Watson Industrial Park, St. Louis 19, Mo.

Harvey, Inc., Sid, 100 E. Mineola Av., Valley Stream, N. Y. Haskelite Mfg. Corp., 701 Ann St., N. W., Grand Rapids 2,

Haskins Co., R. G., 2651 W. Harrison St., Chicago 12, Ill. Hasko Utilities Co., 879 Tenth Ave., New York 19, N. Y. Hassall, Inc., John, Westbury, L. I., N. Y. Hastings Air Conditioning Co., Inc., Box 474, 108 S. Colorado Av., Hastings, Nebr. Hastings Air Control, Inc., 3215 Leavenworth St., Omaha 5,

Nebr.
Hastings-Raydist, Inc., Hampton, Va.
Hauck Mfg. Co., 124-136 Tenth St., Brooklyn 15, N. Y.
Haulette Div., Fayette Mfg. Co., 200 Main St., Morenci, Mich.
Hauserman Co., E. F., 6800 Grant Av., Cleveland 5, Ohio.
Haven Corp., 900 Greenbank Rd., Wilmington 8, Del.
Haven-Busch Co., 3443 Chicago Dr., S. W., Grandville, Mich.
Havens Cooling Towers, Div. of Havens Structural Steel Co.,
1713 Crystal Ave., Kansas City 26, Mo.

1713 Crystal Ave., Kansas City 26, Mo.
Hawthorne Mfg. Corp., Hawthorne, Pa.
Hayes Furnace & Mfg. & Supply Co., 2929 S. Fairfax Ave., Los
Angeles 16, Calif.
Hayes Products Co., Box 202, Portsmouth, Va.
Hays Corp., 742 E. Eighth St., Michigan City, Ind.
Hays Mfg. Co., 801 W. 12th St., Erie 6, Pa.
Hayward Gas Burner Div., Algonac Tool & Die Co., 5297 South
River Rd., Algonac, Mich.
Heat Controller, Inc., 1900 Wellworth, Jackson, Mich.
Heatterfers Manufacturers, Baileys Harbor, Wis

Heatcrafters Manufacturers, Baileys Harbor, Wis. Heating Assurance, Inc., 124 E. Augusta Ave., Spokane 21,

Wash.

Heating Specialties Inc., Carroll P. O., Baltimore 29, Md.

Heatmore, Inc., 651-5 Driggs Ave., Brooklyn 11, N. Y.

Heat Reclaimer Mfg. Div., Dolin Metal Sales Corp., 315 Lexington Ave., Brooklyn 16, N. Y.

Heatron, Inc., 333 Eberts Lane, York, Pa.

Heat-Timer Corp., 657 Broadway, New York 12, N. Y.

Heat-X Inc., Subsidiary of Dunham-Bush Inc., Brewster, N. Y.

Hedges Mfg. Co., Inc., M. M., 700 E. Main St., Chattanooga,

Heidrich-Nourse Co., 631 E. 3rd St., Los Angeles 13, Calif. Heil Process Equipment Corp., 12901 Elmwood Ave., Cleveland 11, O.

Heil-Quaker Corp., P.O. Box 9176, Nashville, Tenn. Heimbach Incinerator Mfg. Co., 1612 University Ave., St. Paul 4, Minn.

Heinrich Tools, Inc., 2707 Industrial Dr., Racine, Wis.

Hendley & Whittemore Co., 6 Blackhawk Blvd., Beloit, Wis.

Hendrick Mfg. Co., 37 Dundaff St., Carbondale, Pa. Henry Furnace Co., Medina, Ohio.

Henry Valve Co., 3215 North Ave., Melrose Park, Ill. Henry & Wright Div., Emhart Mfg. Co., 760 Windsor St., Hartford 1, Conn.

Herbert Fuel Devices, Darien, Conn. Herco Oil Burner Corp., 131-135 Locust St., Lancaster, Pa. Hercules Chemical Co., Inc., 416 Broadway, New York 13, N. Y. Heresite & Chemical Co., 822 S. 14th, Manitowoc, Wis. HERRmidifier Co., 1810 Hempstead Rd., Lancaster, Pa. Hershey Motorstokor, Manheim, Pa.

Hess Co., The, 1855 S. 54th Ave., Chicago 50, Ill. Hess Mfg. Co., Quincy, Pa. Hexdall Co., A. M., Morris, Ill.

Higgins Metal Products Co., 2000 Broadway, Swanton, O. Highland Engineering Co., 1742 Berkeley St., Santa Monica,

Calif.

Calif.

Highside Chemicals Inc., 10 Colfax Ave., Clifton, N. J.

Hill & Co., E. Vernon, P. O. Box 189, Lake Geneva, Wis.

Hill & Co., E. Vernon, P. O. Box 189, Lake Geneva, Wis.

Hillwood Mfg. Co., 21700 St. Clair Av., Cleveland 17, Ohio.

Hi-Lo Mfg. Co., 1625 Massillon Rd., Akron, O.

Hilti Rapid Fastening Systems, Inc., 73 Southfield Ave., P. O.

Box 809, Stamford, Conn.

Hinden Products Co., Box 4, Rockaway Park 94, N. Y.

Hinding & Co., 201 W. 7th St., St. Paul, Minn.

Hi-Qua Mfg. Co., Inc., 4353 Leiper St., Philadelphia 24, Pa

Hirschman-Pohle Co., Inc., 9 Lent Av., LeRoy, N. Y.

Hobart Bros. Co., Canal Lock Square, Troy 1, Ohio.

Hohmann & Barnard, Inc., 204 E. 33rd St., New York 16, N. Y.

Hollaender Mfg. Co., 3841 Spring Grove Ave., Cincinnati 23, Hollaender Mfg. Co., 3841 Spring Grove Ave., Cincinnati 23,

Hollup Corp., Div. National Cylinder Gas Co., 4700 W. 19th

St., Chicago 50, Ill. Holly-General Co., 875 S. Arroyo Parkway, Pasadena 2, Calif. Holtzer-Cabot Motor Div., National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
Holub Industries, Inc., Sycamore, Ill.
HomEase Products Div. of Bogue Electric Mfg. Co., 52 Iowa Av.,

Paterson 3, N. J.

Paterson 3, N. J.

Home Furnace Co., 280 E. 6th St., Holland, Mich.

Home Heating and Cooling Inc., 225 River Dr., Passaic, N. J.

Homeward Products, Inc., 3420 S. W. 9th St., Des Moines, Ia

Hones, Inc., Charles A., 2473 S. Grand Av., Baldwin, N. Y.

Hoover Ball & Bearing Co., 5400 S. State Rd., Ann Arbor, Mich.

Horn Co., Inc., A. C., 10th St. & 44th Av., Long Island City 1,

N. V. N. Y.

Hossfeld Mfg. Co., 460 W. Third St., Winona, Minn. Hotpoint Div., General Electric Co., 5600 W. Taylor St., Chicago

Hotstream Heater Co., 2363 E. 69th St., Cleveland 4, Ohio.

Howard Industries, Inc., Racine, Wis. Howard Iron Wks. & Alberger Heater Div., 287 Chicago St., Buffalo 4, N. Y.

Howes-Woods Co., 210 Bridge St., Cambridge 41, Mass. Hoyt Heater Co. of No. Calif., 926 High St., Oakland, Calif. Hubbell Corp., Box 700, Hawley Rd., Mundelein, Ill. Hub Specialty Co., 53 Salem St., Reading, Mass. Huck Mfg. Co., 2480 Bellevue Av., Detroit 7, Mich.

Hugert Mfg. Co., RD 1 & Chippewa Lake Rd., Medina, Ohio Hughes Mfg. Co., 742 E. 25th St., Norfolk, Va. Humphrey Div., Arkla Air Conditioning Corp., 812 Main St., Little Rock, Ark.

Huncilman & Son, Bert R., 2072 McDonald Ave., New Albany,

Hunter Div., Robbins & Myers, Inc., 2500 Frisco Ave., Mem-Hunt Valve Co., Salem, Ohio.

Hussey & Co., C. G., 2850 Second Av., Pittsburgh 19, Pa. Hustehinson Burner & Mfg. Co., 517 N. Main, Hutchinson, Kans Hydrovalve Co., 1319 Utica Ave., Brooklyn 3, N. Y. Hynes & Cox Electric Corp., Burnt Hills, N. Y.

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I. W. Air Conditioning Corp., 230 Manida St., Bronx 59, N. Y. Ideal Electric & Mfg. Co., E First & Oak Sts., Mansfield, Ohio Ideal Industries. Inc., 1084 Park Av., Sycamore, Ill. Ideas, Inc., 214 Ivinson Ave., Laramie, Wyo. Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41, Ill Illinois Bronze Powder Co., Inc., 2023 S. Clark St., Chicago

Illinois Iron & Bolt Co., Carpentersville, III. Illinois Testing Laboratories, Inc., 420 N. LaSalle St., Chicago 10. III.

10, Ill.
Illinois Zinc Co., Div. of Hydrometals Inc., 2959 W. 47th
St., Chicago 32, Ill.
Imperial Brass Mfg. Co., 6300 W. Howard St., Chicago 48, Ill.
Imperial Damper Co., 664 Edgecombe Ave., New York 22, N. Y.
Imperial Electric Co., 64 Ira Av., Akron 9, Ohio.
Incinerator Products Co., 633 S. Post, Detroit 17, Mich.
Independent Blade Co., Div. Westlund Industries, 533 Main St.,
East Haven 12, Conn.

Independent Nail & Packing Co., Bridgewater, Mass. Independent Register Co., 3747 E. 93rd St., Cleveland 5, Ohio Industrial Acoustics Co., Inc., 341 Jackson Ave., New York 54,

Industrial Brownhoist Corp., 135 Washington, Bay City, Mich. Industrial Engineering and Equipment Co., 24 Hanley Industrial Court, Brentwood 17, Mo.

Industrial Equipment Co., The, Minster, O. Industrial Metal Protectives, 401 Homestead Av., Dayton, Ohio. Industrial Plastic Fabricators, Inc., Norwood, Mass. Industrial Service Laboratories, 710 W. National Ave., Milwaukee

4, Wis.
Infra Insulation Inc., 525 Broadway, New York, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y.
Ingersoll Steel Div., Borg-Warner Corp., 200 S. Michigan Ave.,

Ingram-Richardson Mfg. Co., Beaver Falls, Pa.
Inland Heater Corp., Chilcombe and Hwy. 280, St. Paul 8, Minn.
Inland Mfg. Div., General Motors Corp., 2727 Inland Ave., Day-

ton, O.
Inland Steel Co., 30 W. Monroe St., Chicago 3, Ill.
Inland Steel Products Co., 4023 W. Burnham St., Milwaukee 1, Wis.

Insto-Gas Corp., 998 B. Woodbridge St., Detroit 7, Mich. Insulating Equipment, Inc., 39 S. LaSalle St., Chicago 3, Ill. Insulation & Refractories Co., 48 Commercial St., Webster,

Insul-Coustic Corp., 42-23 54th Rd., Maspeth 78, N. Y. Insulite Div., Minnesota & Ontario Paper Co., Investors Bldg., Minneapolis 2, Minn. Insul-Cell Mfg. Co., 2917 W. Jackson St., Muncie, Ind.

Insul-Wool Insulation Co., 1228 S. Main St., Council Bluffs, Iowa Interchemical Corp., Finishes Div., 224 McWhorter St., Newark

Inter-Coastal Paint Co., 13th & Southern R. R., East St. Louis,

International Covers for Air Conditioners Corp., 532 Broadway, New York 12, N. Y.
International Engineering, Inc., 1145 Bolander, Dayton 1, Ohio.
International Harvester Co., Motor Truck Div., 180 N. Michigan

International Harvester Co., Motor Truck Div., 180 N. Michigan Ave., Chicago 1, Ill.
International Heater Co., 101 Park Av., Utica 2, N. Y.
International Mfg. Co., 600 E. Grand, Oklahoma City, Okla.
International Metal Hose Co., Ashford Ave., Bellevue, O.
International Metal Products Co., P. O. Box 1712, Phoenix, Ariz.
International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
International Oil Burner Co., Park & Spring, St. Louis 10, Mo.
International Register Co., 2620 W. Washington Blvd., Chicago 12 Ill

International Staple and Machine Co., Materials Handling Div., Herrin, Ill.
International Steel Co., 1556 Edgar St., Evansville, Ind.
International Vermiculite Co., Girard, Ill.

Interstate Drop Forge Co., Special Products Div., 4051 N. 27th St., Milwaukee 16, Wis.

Interstate Heater Mfg. Co., 2627 W. 6th Ave., Denver, Colo. Interstate Machinery Co., Inc., 1433 W. Pershing Road, Chicago

Interstate Sales Co., 123 E. 18th St., New York 3, N. Y. Iona Ventilator Co., Inc., 2821-29 W. Dauphin St., Philadelphia Iowa Paint Mfg. Co., Inc., 118-20 Eighth St., Des Moines 9,

Iron Fireman Mfg. Co., 3170 W. 106th St., Cleveland 11,

Iron-Hide Sales Co., Dock St., Matawan, N. J. Iron Lung Ventilator Co., 5403 Prospect Ave., Cleveland 3, Ohio.

Irvington Div., Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.

J & J Sheet Metal Co., 23836 Hoover Rd., Van Dyke, Mich. Jabsco Pump Co., 1485 Dale Way, Costa Mesa, Calif. Jack & Heintz, Inc., 17600 Broadway, Cleveland 1, Ohio. Jackes-Evans Mfg. Co., 4427 Geraldine Ave., St. Louis 15, Mo. Jackson Mfg. Co., Inc., W. L., 1222 E. 40th St., Chattanooga, Jamestown Metal Corp., 104 Blackstone Av., Jamestown 6, N. Y. Jan-Air Inc., Richmond, Ill. Janitrol Heating and Air Conditioning Div., Surface Combustion Corp., 400 Dublin Ave., Columbus 16, O. Jay-Zee Mfg. Co., 10623 S. Ridgeland, Chicago Ridge, Ill. Jefferson Electric Co., 25th & Madison St., Bellwood, Ill. Jemco Tool Corp., 22 State St., Seneca Falls, N. Y. Jenn Air Products Co., 1102 Stadium Dr., Indianapolis, Ind.

Jessop Steel Co., Washington, Pa. Jet-Heet, Inc., 152 S. Van Brunt St., Englewood, N. J.

Johns Mfg. Co., Middlesex, N. J. Johns-Manville, 22 E. 40th St., New York 16, N. Y. Johns-Manville Fiber Glass Inc., 1810 Madison Ave., Toledo, O. Johnson Co., S. T., 940 Arlington Ave., P. O. Box 8152, Oakland 8, Calif. Johnson Furnace Co., The, 2129 W. 117th St., Cleveland 11, O. Johnson Gas Appliance Co., 520 "E" Av., N. W., Cedar Rapids, Johnson Heater Corp., 1 Winnisimet St., Chelsea, Mass. Johnson Ladder Shoe Co., Eau Claire, Wis. Johnson Ladder Shoe Co., Eau Claire, Wis.
Johnson Machine & Press Corp., Div. of Bontrager Corp.,
620 W. Indiana Av., Elkhart, Ind.
Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
Johnson Service Co., 507 E. Michigan St., Milwaukee 1, Wis.
Jones & Laughlin Steel Corp., 3 Gateway Center, Pittsburgh 30, Pa.
Jones & Laughlin Steel Corp., Stainless and Strip Div., Box 4606, Detroit 34, Mich. Jones Machinery Div., Hewitt-Robins, Inc., 4401 W. Roosevelt Rd., Chicago 24, Ill. Jordan & Co., Inc., Paul R., 311 E. South St., Indianapolis 25, Ind. Joy Mfg. Co., Oliver Bldg., Pittsburgh 22, Pa.
Jungers Stove & Range Co., Grafton, Wis.
Juniper Elbow Co., Inc., 72-15 Metropolitan Av., Middle Village, L. I., N. Y.
Justrite Mfg. Co., 2061 N. Southport Ave., Chicago, Ill.

K-G Equipment Co. (Inc.), 1744 Lehigh St., Allentown, Pa. K. S. M. Products Inc., Yale & Woodland Ave., Merchantville, N. KVS Industries Inc., 2165 Colfax St., North Sacramento, Calif. Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland, Calif. Kalamazoo Furnace & Appliance Mfg. Co., Div. of Dowagiac Steel Furnace Co., Beeson St., Dowagiac, Mich. Kane & Roach, Inc., Niagara & Shonnard Sts., Syracuse 4, N. Y. Karyall Body, Inc., 8221 Clinton Rd., Cleveland 9, O. Kauffman Air Conditioning Corp., 4336 W. Pine Blvd., St. Louis, Mo.

Kaufman Co., H. J., 13215 Roselawn Ave., Detroit 38, Mich.

Kaustine Furnace & Tank Corp., 1492 Washington Ave., Perry. Kawneer Co., Niles, Mich. Kaykor Industries, Inc., Yardville, N. J.
Keasbey & Mattison Co., Butler Av., Ambler, Pa.
Keckley Co., O. C., 5400 Cleveland St., Skokie, Ill.
Keeney Mfg. Co., Newington, Conn.
Keith Furnace Co., Dean Av. at E. 26th, Des Moines 17, Iowa Kelvinator Div., American Motors Corp., 14250 Plymouth Rd., Detroit 32, Mich. Kemlite Corp., 101 N. Republic Ave., Joliet, Ill. Kenco Mfg. Co., 5211 Telegraph Rd., Los Angeles 22, Calif.Kendall Co., Walpole, Mass.Kendall Co., The, 309 W. Jackson Blvd., Chicago 6, Ill. Kenetzer & Co., Frank, 811 W. Van Buren, Chicago, Ill. Ken-Joy Gas Burner Co., 3231 W. National Av., Milwaukee 15,

Kenmore Machine Products, Inc., 15 Depew Ave., Lyons, N. Y. Kennametal Inc., Latrobe, Pa. Kennard Corp., 1270 Price Rd., St. Louis 14, Mo.

Kennedy Products Co., 4616 Royal Palm Circle, Phoenix, Ariz. Kensico Tube Co., Mt. Kisco, N. Y.

Kent Co., Inc., 435 Canal St., Rome, N. Y.

Kent-Moore Organization, Inc., 28635 Mound Rd., Warren, Mich. Kerner Incinerator Div., Morse-Boulger, Inc., 80 Fifth Ave.,

New York 11, N. Y. Kerotest Mfg. Co., 2525 Liberty Av., Pittsburgh 22, Pa.

Kesco Products, P. O. Box 84, Springfield Gardens 13, N. Y. Kester Solder Co., 4201 Wrightwood Av., Chicago 39, Ill. Kett Tool Co., 5055 Madison Rd., Cincinnati 27, O. Keystone Flashing Co., 2310 N. 28th St., Philadelphia 32, Pa. Kice Metal Products Co., 485 S. Washington Ave., Wichita 2, Kans.

Kidde Mfg. Co., Inc., Bloomfield, N. J.

Kidder Mfg. Co., Inc., J. F., 426 Colchester Av., Burlington, Vt Kilbury Mfg. Co., Inc., 14529 Hawthorne Blvd., Lawndale, Calif Kilgore, Inc., International Flare-Signal Div., Westerville, O. Killam Gas Burner Co., 1240 S. Bannock, Denver 23, Colo. Kindt-Collins Co., 12653 Elmwood Ave., Cleveland 11, Ohio. King Refrigerator Co., 7602 Woodhaven Blvd., Glendale 27, N. Y. King Co., Box 178, Owatonna, Minn. North Ave., Plainfield, N. J.

King Stove and Range Co., Sheffield, Ala.

Kinney Mfg. Div., The New York Air Brake Co., 3529 Washington St., Boston, Mass. Kirel, Inc., Box 459-A, RFD 1, Kingston, N. Y.
Kirk & Blum Mfg. Co., 3120 Forrer St., Cincinnati 9, O.
Kirk & Son, Inc., Morris P., 2717 S. Indiana St., Los Angeles 23. Calif.

23, Calif.
Kirsch Co., Refrigeration Div., Sturgis, Mich.
Kirsch Boiler & Engineering Co., 2414 Dekalb St., St. Louis 4, Mo.
Klauer Mfg. Co., 9th & Washington St., Dubuque, Iowa.
Kleen Air Mfg. Corp., 225 N. Main St., Janesville, Wis.
Kleer-Kleen Mfg. Co., 103 Orchard Ave., Hayward, Calif.
Klem Chemicals, Inc., 14401 Lanson Av., Dearborn, Mich.
Klemm Automotive Products Co., 1718 N. Damen Ave., Chicago 47, Ill.

cago 47, III.
Klenk, Inc., Karl, 107 E. 5th St., Wilmington, Del.
Kling Bros. Engineering Works, 1320 N. Kostner Ave., Chicago 51. Ill.

Klipfel Mfg. Co., 1075 Lincoln Ave., Hamilton, Ohio. Kloppenborg Foundry & Fan Co., 211 Marquette St., Davenport, Iowa.

Knapp Bros. Mfg. Co., 9000 Shell Rd., Cincinnati 36, O. Knickerbocker Products Co., 1803 Webster, Dayton, O. Knowles Mushroom Ventilator Co., 160 Bellevue Ave., Upper Montclair, N. J.

Kohlenberger Engineering Corp., 1600 W. Commonwealth
Ave., Fullerton, Calif.

Kolb Refractories Co., Meadow & Jackson Sts., Philadelphia, Pa.

Kol-Master Corp., Oregon, Ill. Kool Air Engineering Co., 7122 Fairfax Dr., San Bernardino,

Calif. Kool Engineering Corp., 1320 N. Clybourn Ave., Chicago 10,

Koolvent Metal Awning Corp. of America, 902 Arrott Bldg., Pittsburgh 22, Pa Koppers Co., Inc., Metal Products Div., 200 Scott St., Baltimore 3. Md.

Koppers Co., Inc., Tar Products Div., Koppers Bldg., Pittsburgh

Korfund Co., 48-01-A 32nd Pl., Long Island City 1, N. Y.
Koven & Bro., Inc., L. O., 154 Ogden Ave., Jersey City 7, N. J.
Kraissl Co., Inc., Terhune & Williams Avs., Hackensack, N. J.
Kramer Trenton Co., N. Olden & Breunig Ave., Trenton 5, N. J.
Krauser-Boyd, Inc., 28 Wheatfield St., North Tonawanda, N. Y.
Kraels Mile Co. Lange Second & H. Ste. Betalung. Colif Kresky Mfg. Co., Inc., Second & H Sts., Petaluma, Calif. Kresno-Stamm Mfg. Co., 421 Broad St., Palisades Park, N. J. Krieg, Inc., Victor J., 611 Broadway, New York 12, N. Y. Kritzer Radiant Coils, Inc., 325 N. River St., Batavia, Ill. Krueger Air Conditioning Corp., 19 E. Rillito St., Tucson,

Krueger Sentry Gauge Co., Green Bay, Wis. Kuehn Tool Co., 225 E. First Ave., Roselle, N. J.

Labeled Metal Products Corp., 2000 Cermak Rd., Broadview, Laclede Steel Co., Arcade Bldg., St. Louis 1, Mo. Laco Oil Burner Co., Inc., 238 Union St., Griswold, Iowa. LaCrosse Steel Roofing & Corrugating Co., 227 Jsy St., La-Crosse, Wis. Laharco Industries, Inc., 721 2nd Ave., N., Minneapolis 5, Minn. Lake Chemical Co., 3052 W. Carroll Ave., Chicago 12, Ill. Lake Erie Machinery Corp., Riverview & Woodward, Buffalo 7, N. Y Lakewood Engineering & Mfg. Co., 212 N. Carpenter St., Chicago 7, III.
 Laminated Sheet Products Corp., 449 Neponset St., Norwood, Mass. Mass.

Lammert & Mann Co., Wood & Walnut Sts., Chicago 12, Ill.

Lamson Mobilift Corp., 835 S. E. Main St., Portland 14, Ore.

Lane Sheet Metal, 212 16th Ave., S. W., Minot, N. D.

Langsenkamp Co., F. H., 229 E. South St., Indianapolis 25, Ind.

Lantz Mfg. Co., Inc., Valparaiso, Ind.

Lapeer Mfg. Co., 1144 W. Baltimore, Detroit 2, Mich.

Laramy Products Co., 90 South St., Hingham, Mass.

Larkin Coils, Inc., 519 Memorial Dr., S. E., Atlanta 1, Ga.

Lastik Paint, Inc., 203 Iroquois Bldg., Pittsburgh 13, Pa.

Lau Blower Co., 2027 Home Av., Dayton 7, Ohio. Laurel Products, Inc., P. O. Box 946, Laurel, Miss. Lawson Mfg. Co., Box 133, New Kensington, Pa. Leas Co., H. Leslie, Monona, Iowa. Lee Corporation, P. O. Box 1801, Wilmington, Del. Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa. Leeson Air Conditioning Corp., 14631 Meyers Rd., Detroit 27,

Lehigh Fan & Blower Div., Fuller Co., Catasauqua, Pa. Lehigh Mfg. Co., Div. of Lehigh, Inc., Easton, Pa. Leisur-Maid Mfg. Corp., 338 Wealthy St., S. W., Grand Rapids 3. Mich.

Leland Ohio Electric Co., Subsidiary of Howell Electric Motors Co., 1501 Webster St., Dayton 1, Ohio.

Lenk Mig. Co., Franklin, Ky.
Lenly Mig. Co., Franklin, Ky.
Lenly Mig. Co., Inc., 901 E. Ninth St., Los Angeles 21, Calif.
Lennox Industries Inc., 200 S. 12th Av., Marshalltown, Iowa;
1705 Olentagy River Rd., Columbus, Ohio; 400 N. Midler Av.,
Syracuse, N. Y.

Syracuse, N. Y.

Lennox Tool & Machine Builders, 651 N. Baxter, Lima, O.

Leslie Creations, Lafayette Hill, Pa.

Leslie Welding Co., Inc., 2943 Carroll Ave., Chicago 12, Ill.

Lester Laboratories, Inc., P. O. Box 4897, Atlanta 2, Ga.

Leukart Machine Co., J., 2222 S. Third St., Columbus, O.

Levow Inc., David, 7 Georgia St., South Hackensack, N. J.

Lewbill Industries, Inc., 8 Spring St., Scottdale, Pa.

Lewellen Mfg. Co., 1428 10th St., Columbus, Ind.

Lewin-Mathes Co., Div. of Cerro De Pasco Corp., 1111 Chouteau Ave., St. Louis 2, Mo.

Lewyt Air-Conditioner Corp., 43-22 Oueens St., Long Island

Lewyt Air-Conditioner Corp., 43-22 Queens St., Long Island City 1, N. Y. Lexsuco, Inc., P. O. Box 376, Solon, O.

L'Hommedieu & Sons Co., Chas. F., 4521 Ogden Av., Chicago 23, III.

Libbey-Owens-Ford Glass Co., 608 Madison Ave., Toledo 3, O. Libert Machine Co., 324 N. Roosevelt St., Green Bay, Wis. Liberty Combustion Corp., P. O. Box 300, Syracuse 1, N. Y. Lignum-Vitae Products Corp., 906 Boyd Av., Jersey City, N. J. Lilie-Hoffmann Cooling Towers, Inc., 1450 S. Vandeventer Ave., St. Louis 10, Mon. St. Louis 10. Mo.

Lima Electric Motor Co., Inc., Dept. 10, Lima, O. Lima Register Co., 1790 N. Cable Rd., Lima, Ohio. Lincoln Air Control Products, Inc., Swarthmore, Pa. Lincoln Brass Works, 2067-12th St., Detroit, Mich.

Lincoln Electric Co., 22801 St. Clair Av., Cleveland 17, Ohio. Lincoln Furnace Co., Inc., 230-244 Goffle Rd., Hawthorne, N. J. Lind Co., C. W., P. O. Box 7501, 3403 Penn Ave., N., Minneapolis 22, Minn.

Linde Co., Div. Union Carbide Corp., 30 E. 42nd St., New York 17, N. Y.

Link-Belt Co., Prudential Plaza, Chicago 1, Ill.

Liquidometer Corp., Skillman Av., 36th and 37th Sts., Long Island City 1, N. Y. Little Burner Co., Inc., H. C., Woodland Ave. & Du Bois St.,

San Rafael, Calif.

San Rafael, Calif.

Littleford Bros., Inc., 453 E. Pearl St., Cincinnati 2, Ohio.

Little Giant Pump Co., Div. of Little Giant Vaporizer Co., Inc., 3810 N. Tulsa, P. O. Box 7025, Oklahoma City, Okla.

Livingston, Inc., Kalamazoo Av., Marshall, Mich.

Locke Regulator Co., Walter and Osborne Sts., Salem, Mass.

Locke Stove Co., 114 W. 11th St., Kansas City 5, Mo.

Lockformer Co., 4615 Roosevelt Rd., Chicago 50, Ill.

Lockhart Mfg. Corp., 6350 E. Davison, Detroit 12, Mich.

Lockport Mills Inc., Lockport, N. Y.

Lodding Inc., 75-79 Beacon St., Worcester 1, Mass.

Loline Steel Boiler Co., 235 S. Penn St., Allentown, Pa.

London Chemical Co., 1335 N. 31st Ave., Melrose Park, Ill.

Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.

Los Angeles Sheet Metal Mfg. Co., Inc., 900 E. Ninth St., Los

Los Angeles Sheet Metal Mfg. Co., Inc., 900 E. Ninth St., Los Angeles 21, Calif.

Lovejoy Flexible Coupling Co., 4841 Lake St., Chicago 44, Ill. Lovekin Water Heater Co., 39 Laurel St., Philadelphia 23, Pa Lovinggood Tool Co., P. O. Box 4741, Charleston Heights, S. C. Ludlow Papers, Inc., Needham Heights 94, Mass.

Lufkin Rule Co., Saginaw, Mich. Lug-All Co., 355 Lancaster Ave., Haverford, Pa.

Lukens Metal Co., Thos. F., Hedley & Bath Sts., Philadelphia 37, Pa.

Lukens Steel Co., 352 Lukens Bldg., Coatesville, Pa. Lumm Co., A. H., 3151 South Ave., Toledo 9, O.

Lyman Co., H. B., Southampton, Hampshire Co., Mass.

Lundt, Inc., Ernest C., Route 46, P. O. Box 216, Little Falls, N. J.

Lustrik, Inc., 3235 Frankford Av., Philadelphia 4, Pa. Luty Furnace Mfg. Co., 8321 W. Davison Ave. Detroit 38, Mich Luxra Co., 1018 Commercial, Atchison, Kans. Luzerne Rubber Co., Muirhead Ave., Trenton 7, N. J.

Lynch Asbestos Co., 2939 S. Sunol Dr., Los Angeles 23, Calif. Lynch & Sons, Kenneth, 80 Main Ave., Wilton, Conn. Lynn Corp., Inc., 234 S. Fountain St., Marshall, Mich. Lynn Products Co., 17 Willow St., Lynn, Mass. Lyon Metal Products, Inc., 740 Railroad Ave., Aurora, Ill. Lyons, Edward W., 115 W. Glenaven Ave., Youngstown 7, O.

# M

MB Mfg. Co., Div. of Textron Inc., P. O. Box 1825, New Haven 8. Conn. M & E Mfg. Co., 2581 W. Winthrop, Indianapolis 3, Ind.

Madden Brass Products Co., P. O. Box 444, Aurora, Ill. Made-Rite Co., Inc., 10th & Monroe St., Newport, Ky.
Magic Aire Div., United Electric Co., 500 Block Galveston St.,
Wichita Falls, Tex.

Magic Chemical Co., 129 Crescent St., Brockton 2, Mass. Magic Servant Products Co., 15211 Joy Rd., Detroit 28, Mich. MaGirl Foundry & Furnace Co., 413 E. Oakland Ave., Bloom-

ington, Ill.

Magnus Chemical Co., Garwood, N. J. Mahon Co., R. C., 6565 E. 8 Mile Rd., Detroit 34, Mich. Mainon Co., K. C., 0305 E. 8 Mile Kd., Detroit 34, Mich. Maid-O'-Mist Inc., 3217 N. Pulaski Rd., Chicago 41, Ill. Main Cornice Works, Inc., 2824 N. Main St., Los Angeles, Calif. Majestic Co., Inc., 733 Erie St., Huntington, Ind. Major Controls Co., 13985 E. 6th St., P. O. Box 537, Corona, Calif

Major Metal Products, Inc., 707 E. 61st St., Los Angeles 1, Calif. Malco Products, 3356 Gorham Ave., Minneapolis 26, Minn. Malden Research and Development Co., Inc., 1130 Main St.,

Malden, Boston 48, Mass.
Mallory Co., Inc., P. R., 52 S. Gray St., Indianapolis 6, Ind.
Mallory-Sharon Metals Corp., Niles, O.

Malm Mtg. Co., 1565 Como Ave., St. Paul, Minn.

Mamco Corp., 4th & Ontario St., Racine, Wis.

Mammoth Furnace Co., 6425 Cambridge St., Minneapolis 26,

Manhattan Perforated Metal Co., Inc., 43-17 37th St., Long Island City 1, N. Y.

Manheim Mfg. and Belting Co., 272 Stiegel St., Manheim, Pa.

Mannesmann-Easton Plastic Products Co., Inc., 900 Line St.,

Easton, Pa.

Manning Co., Charles E., 90 Clairton Blvd., Pittsburgh 36, Pa. Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford,

Mansfield Sanitary, Inc., Perrysville, O.
Manville Boiler Co., Inc., Singer St., Hackettstown, N. J.
Mapes Industries, Inc., P. O. Box 2067, 2929 Cornhusker Hwy.,
Lincoln, Nebr.

Maple City Furnace Co., Monmouth, Ill. Maplewood Div., Rockford Machine Tool Co., 2500 Kishwau-

kee St., Rockford, Ill.

Marathon Electric Mfg. Corp., Cherry & Randolph Sts., Wausau,

Marble Electric Corp., Gladstone, Mich. March Mfg. Co., 8015 N. Lawndale Ave., Skokie, Ill. Marco Co., 45 Greenwood Ave., East Orange, N. J.

Marco Electric Mfg. Corp., Third & Franklin St., Womelsdorf, Pa. Marine Electrolysis Eliminator Co., 617 Dearborn St., Seattle,

Wash. Markal Co., 3052 W. Carroll Ave., Chicago 32, Ill Markal Co., 3052 W. Carroll Ave., Chicago 32, III.
Markel Electric Products, Inc., 145 Seneca St., Buffalo 3, N. Y.
Markwell Mfg. Co., Inc., 200 Hudson St., New York 13, N. Y.
Marley Co., The, 222 W. Gregory Blvd., Kansas City 14, Mo.
Marlo Coil Co., 7100 S. Grand Ave., St. Louis 11, Mo.
Marquette Mfg. Co., Inc., 307 E. Hennepin Ave., Minneapolis

14, Minn. Marshalltown Mfg. Co., 901 E. Nevada St., Marshalltown, Iowa. Marsh Corp., Jas. P., Skokie, Ill.

Martens & Stormoen Co., 231 Willard St., West Quincy 69,

Martin Fan & Blower Co., 4634 W. 21st Place, Chicago 50, Ill. Martin Co., Inc., J. O., 637 Minna St., San Francisco 3, Calif. Martin Stamping & Stove Co., Huntsville, Ala.

Marvin Electric Mfg. Co., 648 Santa Fe Ave., Los Angeles 21, Calif.

Marviray, Inc., 54 Clifton St., Newark 5, N. J. Masland Duraleather Co., Philadelphia 34, Pa. Mason Products, Inc., Woburn, Mass.

Master-Craft Industries, Inc., 109 Lanza Ave., Garfield, N. J. Master Electric Co., Div. of Reliance Electric and Engineering Co., 126 Davis Av., Dayton 1, Ohio.

Master Products Co., 7000 S. Wentworth, Chicago 21, Ill.

Master Vibrator Co., 1752 Stanley, Dayton, O.

Mathes Co., The., Div. of Glen Alden Corp., 1501-29 E. Broadway, Fort Worth 5, Tex.

way, Fort Worth 5, Tex.

Matt Coil-Less Burner Co., 4015 W. Lake St., Chicago 24, Ill.

Matthews Electric Heater Mfg. Co., Albertville, Ala.

Matthiessen & Hegeler Zinc Co., LaSalle, Ill.

Mauer Engineering, 2525 Colfax St., Evanston, Ill.

Maurey Mfg. Corp., 2915 S. Wabash Av., Chicago 16, Ill.

Maurlee Co., Inc., Woodbury Hts., N. J.

Maxitrol Co., 12200 Beech Rd., Detroit 39, Mich.

Mayflower Air Conditioners, Inc., Duluth Av. & E. Seventh St.,

St. Paul 6, Mign. St. Paul 6, Minn.

Mayne Products Co., 324 Harries Bldg., Dayton 2, Ohio. Maze Co., W. H., Peru, Ill.

McCabe Powers Auto Body Co., 5900 N. Broadway, St. Louis, Ma

McCollum Hoist & Mfg. Co., 721 Rogers St., Downers Grove, III.

McCord Corp., 2587 E. Grand Blvd., Detroit 11, Mich. McCorkle Co., D. H., Sixth & Bancroft Way, Berkeley 10, Calif. McDaniel Mig. Co., Inc., 1012 Powhattan St., Dallas 2, Texas. McDonald Mig. Co., A. Y., 12th & Pine Sts., Dubuque, Ia. McDonnell & Miller, Inc., 3500 N. Spaulding Av., Chicago 18,

McGraw-Edison Co., Clark Div., 5201 W. 65th St., Chicago 38,

McIntire Co., Okner Parkway, P. O. Box 5, Livingston, N. J. McKay Co., 1005 Liberty Ave., Pittsburgh 22, Pa.

McKey Perforating Co., Inc., 2740 S. 32nd St., Milwaukee 46. Wis.

McLarty Systems, 2600 Dickman, Battle Creek, Mich.

McLean Engineering Laboratories, P. O. Box 228, Princeton,

McLouth Steel Corp., 300 S. Livernois, Detroit 17, Mich. McMillan Comfortaire Heat Pumps, Inc., P. O. Box 5897, Jacksonville 7. Fla.

McPherson Furnace & Supply Co., 1805 N. E. 2nd Ave., Portland

12, Ore.
McQuay, Inc., 1600 Broadway, N. E., Minneapolis 13, Minn.
McQuay-Norris Mfg. Co., Southwest Ave. at Marconi, St. Louis,

Meadows, Inc., W. R., 2 Kimball St., Elgin, Ill. Mears Electric Controls, Swan Island, Portland 17, Ore. Mechanical Contractors Supply Co. Inc., 277 Water St., New York 30, N. Y.

Meler Electric, 3525 E. Washington St., Indianapolis 7, Ind. Melchior, Armstrong, Dessau Co., Ridgefield, N. J. Melco Products, Inc., 301 5th Ave., S., Minneapolis, Minn. Mel-Gauge Co., P. O. Box 126, Station A, New Haven, Conn. Mephisto Tool Co., Inc., P. O. Box 16, Hudson, N. Y. Merchandising and Mfg. Associates, Inc., 53 North Duke St., Lancaster, Pa. Meier Electric, 3525 E. Washington St., Indianapolis 7, Ind.

Lancaster, Pa.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.

Mercury Air Conditioning & Heating Equipment, Div. of Lord and Palmer, Inc., P. O. Box 27, Belding, Mich.

Meriam Instrument Co., 10920 Madison Ave., Cleveland 2, Ohio. Merit Co., 2124 W. Chicago Ave., Chicago 22, Ill.

Metalcraft Engineering Co., 3625 N. 48th St., Lincoln, Nebr.

Metalcraft, Inc., Mason City, Iowa

Metalcraft, Inc., 3036 W. Chicago Ave., Chicago 22, Ill.

Metal Fabricators, Inc., P. O. Box 3232, Charlotte 3, N. C.

Metal Industries, Inc., Clearwater, Fla.

Metal Lace and Stitch Inc., 255 Fifth Ave., New York 16.

Metal Lace and Stitch Inc., 255 Fifth Ave., New York 16,

Metalines, Inc., 2500 N. Main, Rockford, Ill. Metal Mfg. Co., 114 N. W. 5th St., Fort Lauderdale, Fla. Metals & Controls, Div. of Texas Instruments, Inc., 43 Forest

St., Attleboro, Mass. Metals & Controls Corp., Spencer Div., 43 Forest St., Attleboro,

Metals & Controls Corp., Versailles Products Div., Versailles, Ky. Metals Div., Olin Mathieson Chemical Corp., East Alton, Ill. Metal & Thermit Corp., Rahway, N. J. Metro Metal Mfg. Co., Holt, Mich. Metropolitan Refining Co., Inc., 50-23 23rd St., Long Island

City 1, N. Y.

Mettler Co., Inc., The, Div. of Eclipse Fuel Engineering Co., 1101 Buchanan St., Rockford, Ill.

Metzger Machine & Engineering Co., Thermoflo Div., 6770 N. 43 St., Milwaukee, Wis.

Metzner Stove and Furnace Supply Co., 413 Delaware St., Kansas City 5, Mo.

Meyer & Bro. Co., F., 308 S. Commercial St., Peoria 2, Ill. Meyer Furnace Co., 1300 S. Washington St., Peoria 1, Ill. Meyer Sheet Metal Machinery Co., 1928 Santa Fe Ave., Los Angeles, Calif.

Meyer & Sons, Inc., W. W., 8257 Elmwood Ave., Skokie, Ill. Miami Products, Inc., N. W. 22nd Ave., Miami, Okla.

Michigan Steel Tube Products Co., Holbrook & Buffalo Avs., Detroit 12, Mich.

Micro Products Co., 20 N. Wacker Dr., Chicago 6, Ill.
Microtron Corp., P. O. Box 2092, Charlotte 1, N. C.
Midco Register Corp., 1059 Grand Av., St. Paul 5, Minn.
Mid-Continent Metal Products Co., 1960 Clybourn Av., Chicago

Middlesex Paper Tube Co., Inc., 345 Chelmsford St., Lowell, Mass Midland Paint & Varnish Co., 1329 Harrison Ave., S. W., Can-

ton 1, O. Mid-States Welder Mfg. Co., 6025 S. Ashland Ave., Chicago

Midwest Airmoving Corp., 4498 Beidler Rd., Willoughby, O. Midwest Automatic Control Co., 510 Third St., Des Moines 9, Iowa

Mid West Body & Mfg. Co., Paris, Ill. Midwest Heater Co., 3222 Manderson St., Omaha 11, Nebr Midwest Insulations, Inc., Wabash, Ind. Midwest Mfg. Co., 2205 Haskell Ave., Lawrence, Kans.

Midwest Pump Div., Sherwood Mfg. Co., 500 N. Dodgion, Inpendence, Mo.

Miller & Associates, David, P. O. Box 572, Beverly Hills, Calif. Miller-Church Industries, Eaton Rapids, Mich.

Miller & Doing, 89 Adams St., Brooklyn 1, N. Y. Miller Electric Mfg. Co., Inc., 718 S. Bounds St., Appleton, Wis Miller-Harris Instrument Co., 1134 S. First St., Milwaukee 2, Wis.

Miller-Harris Instrument Co., 1134 S. First St., Milwaukee 2, Wis. Miller-Knuth Mfg. Co., Auburn, Nebr.
Miller Products Co., 5615 S. Cedar St., Lansing 10, Mich.
Millers Falls Co., 57 Wells St., Greenfield, Mass.
Mills Corp., Elmer E., 2930 N. Ashland Ave., Chicago 13, Ill.
Millo Mfg. Co., 301 N. Broad St., Elizabeth, N. J.
Milwaukee Brush Mfg. Co., 2236 N. 30th St., Milwaukee, Wis.
Milwaukee Electric Tool Corp., 5368 W. State St., Milwaukee

kee 8, Wis.

Mineral Wool Insulations, Div. of Better Industries, Inc., 13361
San Bernardino Ave. (P. O. Box 96), Fontana, Calif.

Mine Safety Appliances Co., 201 N. Braddock Ave., Pittsburgh 8, Pa.

Minneapolis-Honeywell Regulator Co., 2747 Fourth Av. S., Minneapolis 8, Minn.

Minnesota Mining & Mfg. Co., Adhesives, Coatings & Sealers Div., 900 Bush Ave., St. Paul 6, Minn.
Minnesota Mining and Mfg. Co., Coated Abrasives and Related Products Div., 900 Bush Ave., St. Paul 6, Minn.
Minn-Kota Foundry & Mfg. Co., P. O. Box 576, Moorhead,

Minn.

Miracle Adhesives Corp., 250 Pettit Ave., Bellmore, L. I., N. Y. Mirro Aluminum Co., Manitowoc, Wis. Mirror Patented Stove Pipe Co., 65 Park St., Hartford, Conn. Misener Mfg. Co., Inc., 202-8 Walton St., Syracuse 2, N. Y. Mitchell Metal Works, Mike, Kosciusko, Miss.

Modern Controls Corp., 24400 Mound Rd., Centerline, Mich. Modern Die & Machine Co., 166 Pleasant St., Boston 25, Mass. Modern Dust Bag Co. Inc., 132 E. Railroad Ave., West Haverstraw, N. Y.

straw, N. Y.

Modern Engineering Co., 3411 Pine Blvd., St. Louis 3, Mo.

Modernheat Cable Corp., P. O. Box 576, Kingsport, Tenn.

Modern Lighters Inc., 46330 W. 7 Mile Rd., Northville, Mich.

Modern Mfg. Co. Inc., 680 Davisville Rd., Willow Grove, Pa.

Modern Metals, Inc., 1307 Ashland, Houston 8, Tex.

Modine Mfg. Co., 1580 DeKoven Ave., Racine, Wis.

Modular Plastic Corp., 1635 Westminster, Detroit 11, Mich.

Moeller Instrument Co., 132nd St. & 89th Av., Richmond Hill

18, N. Y. Moeschl-Edwards Corrugating Co., Inc., P. O. Box 1115, Cin-

cinnati, Ohio. Molloy Machine Corp., 3445 N. Western Ave., Chicago 18, Ill. Momar Industries, 4323 W. 32nd St., Chicago 23, Ill. Monarch Mfg. Works, Inc., 2501 E. Ontario St., Philadelphia

34, Pa. 34, Pa.

Moncrief Furnace Co., P. O. Box 1673, Atlanta 1, Ga.

Moncrief Lenoir Mfg. Co., 2103 Lyons, Houston, Tex.

Monitor Controller, 99 Grove St., Rockland, Mass.

Monogram Industries, Inc., 825 S. Front St., Quincy, Ill.

Monogram Products Co., Inc., 731 N. 35th St., Philadelphia 4,

Monsanto Chemical Co., Lindbergh & Olive St. Rd., St. Louis 24,

Monsanto Chemical Co., 812 Monsanto Ave., Springfield, Mass. Montag Inc., 8701 N. Denver Ave., Portland 17, Ore.

Montgomery Chemical Co., Jenkintown, Pa. Montgomery Products Co., 2381/2 Mill St., Lansing 29, Mich. Montgomery Specialty Co., Inc., 19 John St., Paterson, N. J. Moore Co., 800 S. Missouri, Marceline, Mo.

Moore, Inc., Goodloe E., 2811 N. Vermilion St., Danville, Ill. Morey, Dan, 814-816 S. Robertson Blvd., Los Angeles 35, Calif. Mor-Flo Heater Corp., 2174 E. 76th St., Cleveland 3, O. Morheat Corp., 5548 Stewart, Cincinnati, O. Morrill Motors, Inc., 3685 Northrop, Fort Wayne, Ind. Morris Paint & Varnish Co., 27th & Douglas Sts., Omaha, Nebr. Morris Sheet Metal Works, 1680 W. Mound St., Columbus 23, O. Morrison Products, Inc., 16816 Waterloo Rd., Cleveland 10,

Morrison Steel Products, Inc., 601 Amherst St., Buffalo 7, N. Y. Morse-Smith-Morse Co., The, 165 Dexter Ave., Watertown 72,

Mortell Co., J. W., Hobbie Av. & Big Four R.R., Kankakee, Ill. Mortemp Corp., 1727 First Ave., S., Seattle 4, Wash. Mortemp Furnace Div., Witte-Toledo Co., 30 N. Westwood, Toledo 7, O.

Morton Engineering Services, Paul S., 5134 Meadowlark Lane,

Kalamazoo, Mich. Morysville Body Works, Inc., 813 S. Reading Ave., Boyer-

Moser & Son Mfg. Co., 227 E. Washington St., Bluffton, Ind. Mountain States Equipment Co., 1238 Speer Blvd., Denver 4, Colo Mt. Vernon Furnace & Mfg. Co., P. O. Box 213, Mt. Vernon

Muckle Mfg. Co., Owatonna, Minn. Mueller Brass Co., 1925 Lapeer Av., Port Huron, Mich. Mueller Climatrol, 2005 W. Oklahoma Ave., Box 401, Milwaukee 1, Wis.; 1024 Westminster Ave., Alhambra, Calif.

1, Wis.; 1024 Westminster Ave., Alhambra, Calif.
Mueller Co., 512 W. Cerro Gordo St., Decatur, Ill.
Mueller Co., Paul, P. O. Box 150, Springfield, Mo.
Multifinish Mfg. Co., 26341 W. Eight Mile Rd., Detroit 40, Mich.
Multiple Ceramics, 154 Thorncliff Road, Buffalo 17, N. Y.
Multiple Corp., 1905 N. Main St., Dayton 5, O.
Muncie Burner Mfg. Co., 27293 Eureka Rd., Romulus, Mich.
Muncie Gear Works, P. O. Box 433, Cordele, Ga.
Mundet Cork Corp., 7101 Tonnelle Ave., North Bergen, N. J.
Mundt Sons, Charles 53, Fairmont Av. Jersey City A. N. I.

Mundt & Sons, Charles, 53 Fairmont Av., Jersey City 4, N. J. Mustee Heater Co., 3409 Superior Av., Cleveland 14, Ohio. Mutual Liquid Gas & Equipment Co., 17117 S. Broadway, Gar-

dena, Calif. Mutual Mfg. Co., 4516 162nd St., Flushing 58, N. Y. Mystik Adhesive Products Co., 2635 N. Kildare Ave., Chicago

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Nalco Chemical Co., 6216 W. 66th Pl., Chicago 38, Ill. Nat Corp., The, 2710 McGee Trwy., Kansas City, Mo. National Airoil Burner Co., Inc., 1336 E. Sedgley Av., Philadelphia 34, Pa.

phia 34, Pa.

National Aniline Div., Allied Chemical & Dye Corp., 261 Madison Ave., New York, N. Y.

National Appliances, Inc., P. O. Box 173, New Kensington, Pa.

National Controls, Inc., 400 Homer St., Newton Center, Mass.

National Cork Co., 1 Engle St., Englewood, N. J.

National Elbow and Fitting Corp., 48-11 20th Ave., Long Island

City, N. Y.

National Electric Welding Machines Co., 1846 N. Trumbull St., Bay City, Mich. National Engineering & Mfg. Co., 16th & Lamiece St., Sedalia,

National Equipment Co., Inc., P. O. Box 122, Denison, Tex. National Foundry & Furnace Co., Station "B," P. O. Box 35, Dayton 7, Ohio.

National Grille & Register Co., 10740 Broadway Ave., Cleveland,

National Gypsum Co., 325 Delaware Av., Buffalo 2, N. Y. National Heater Co., Inc., 2475 Doswell Ave., St. Paul 8, Minn.

National Lead Co., 111 Broadway, New York 6, N. Y.

National Lead Co., 111 Broadway, New 1016 o, N. 1.

National Lock Co., 1902 Seventh St., Rockford, Ill.

National Mfg. Corp., 153 Fillmore Av., Tonawanda, N. Y.

National Metal Fabricators, 2142 S. Sawyer Av., Chicago 23, Ill.

National Modulation Co., 2720 N. Hy. 61, St. Paul 9, Minn.

National Pipe Bending Co., 122 River St., New Haven 13, Conn.

National Pneumatic Co., Inc., 420 Lexington Ave., New York, N. Y.

National Steel Construction Co., 500 Myrtle St., Seattle, Wash. National Steel Construction Co., 1801 Pasadena Ave., Los Angeles 31, Calif.

National Super Service Co., 1944 N. 13th St., Toledo 2, Ohio. National Thermatic Corp., P. O. Box 7464, Houston 8, Tex. National-U. S. Radiator Corp., 944 Ash St., Johnstown, Pa. National Welding Equipment Co., 218 Fremont St., San Francisco, Calif.

Naturalite, Inc., 5115 E. Grand, Dallas, Tex.

Naugatuck Chemical Div., U. S. Rubber Co., Naugatuck, Conn. Nazar Rubber Co., 2727 Avondale, Toledo 7, O. Nebel Mfg. Co., P. O. Box 3942, Shaker Sq. Station, Cleveland 20. Ohio.

20, Ohio.

Neilson Chemical Co., 2300 Gainsboro, Detroit 20, Mich.

Neilson Bros. & Strom Co., 1620 Racine St., Racine, Wis.

Nelson-Harkins Industries Inc., 5301 N. Kedzie, Chicago 25, Ill.

Nelson Industries, 115 E. Carson St., Pittsburgh, Pa.

Nelson Products, Herman, American Air Filter Co., Inc., 215

Central Ave., Louisville 8, Ky.

Nelson Stud Welding Div., Gregory Industries, Inc., Toledo Av.

& E. 28th St., Lorain, Ohio.

Nesbitt, Inc., John J., State Rd. & Rhawn St., Philadelphia 36,

New-Aire Blower Co., 25425 John R. St., Madison Heights,

New Delphos Mfg. Co., 102 S. Pierce St., Delphos, Ohio. New England Carbide Tool Co., Inc., 55 Commercial St., Medford 55, Mass.

Newmack Corp., 147 Eady Court, Elyria, O. Newman Electric Motors Inc., 357 Wilson Ave., Newark 5, N. J. New Monarch Machine & Stamping Co., 406 S. W. 9th St., Des Moines 9, Iowa.

New Plastic Corp., 1026 N. Sycamore, Hollywood 38, Calif. New York Blower Co., 3155 Shields Av., Chicago 16, Ill. Niagara Blower Co., 405 Lexington Av., New York 17, N. Y. Niagara Furnace Div., Forest City Foundries Co., 2500 W. 27th St., Cleveland 13, O. Niagara Machine & Tool Works, 637-697 Northland Av., Buffalo 11, N. Y.

Niagara Motors Corp., Dunkirk, N. Y. Niagara Products Co., 4311 E. Thomas Rd., Phoenix, Ariz.

Nibco Inc., Elkhart, Ind.

Nicework Metal Products Co., Leetsdale, Pa.
Nichols Wire & Aluminum Co., Davenport, Iowa.
Nicolet Industries, Inc., Florham Park, N. J.
Nicolet Industries, Inc., Washington St. below Ford St., Norris-

town, Pa.

Nixalite Co. of America, 1722-26 First Ave., Rock Island, Ill. Noble & Stanton, Inc., 1035 Broadway, Bedford, Ohio. Nobur Mfg. Co., 6860 Farmdale Ave., North Hollywood, Calif.

Calif.
Nooter Corp., 1400 S. Second St., St. Louis 4, Mo.
Nord Corp., 510 Franklin Ave., Nutley, N. J.
Norky Mfg. Corp., P. O. Box 669, Covington, Ky.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Norman Chemical Co., 1630 Carroll Ave., St. Paul 4, Minn.
Norman Products Co., 1150 Chesapeake Av., Columbus 12, Ohio.
North American Aberton Corp. 3210, Broad of Trade Bldg. North American Asbestos Corp., 3210 Board of Trade Bldg., 141 W. Jackson Blvd., Chicago 4, Ill. North American Mogul Products Co., Standard Building,

Cleveland 13. Ohio.

North Coast Mfg. Corp., Box 6711, Portland 66, Ore. Northeast Consultants, Inc., 65 Concord St., Framingham, Mass. Northern Blower Co., 6409 Barberton Av., Cleveland 2, Ohio North Shore Nameplate Inc., 214-27 Northern Blvd., Bayside, L. I., N. Y.

Northwest Foundry & Furnace Co., 2345 S. E. Gladstone St., Portland 2, Ore. Northwest Metal Products, Inc., 55 Spokane St., Seattle 4,

Wash. Norwalk Air Conditioning Corp., 138 Water St., South Norwalk, Conn.

Norwood Products Co., Div. A. R. Wood Mfg. Co., Luverne, Minn.

NuSteel Co., 1714 S. Ashland Ave., Chicago 8, Ill. NuTone, Inc., Madison & Red Bank Rd., Cincinnati, Ohio. Nu-Way Corp., The, 2416 Fourth St., Rock Island, Ill.

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Oakite Products Inc., 19 Rector St., New York 6, N. Y. Obdyke, Inc., Benjamin P., 447 N. Eighth St., Philadelphia 23,

Octagon Ventilator Co., 5828-30 S. Oakley Av., Chicago 36, Ill. Ohio Electric Mfg. Co., Subsidiary of Howell Electric Motors Co., 5910 Maurice Ave., Cleveland 4, Ohio.

Ohio Foundry & Mfg. Co., Penn R. R. & Slack St., Steubenville. Ohio.

Ohio Hoist Mfg. Co., 321 S. Beaver St., Lisbon, O. Ohio Nut & Bolt Co., 33 First Ave., Berea, O.

Ohio Paper Co., Miamisburg, Ohio. Ohmer Co., Geo. H., Box 34, Sta. D, Dayton 10, Ohio.

Ohmlac Paint & Refining Co., 6550 S. Central Av., Chicago 38,

Oil Equipment Laboratories, Inc., 456 Bridge St., Elizabeth, N. J. Oil Equipment Mfg. Corp., 169 Derby Ave., New Haven, Conn. Okun Co., Inc., A. L., 109-02 Van Wyck Expwy., So. Ozone Park, N. Y.
Olin Mathieson Chemical Corp., 460 Park Ave., New York, N. Y.

Olsen Mfg. Co., The C. A., Filbert St., Elyria, Ohio. Omark Industries, Inc., 9701 S.E. McLaughlin Blvd., Portland,

Ore.
Onco Products, Inc., P. O. Box 442, Middletown, O. Oncida Heater Co., Inc., Oncida, N. Y.
O'Neil-Irwin Mfg. Co., 594 Eighth Ave., Lake City, Minn. Ormsby-Osterman Co., 3631 Cass Av., St. Louis 13, Mo. Osborne & Co., C. S., 125 Jersey St., Harrison, N. J.
Osborn Mfg. Co., 5401 Hamilton Av., Cleveland 14, Ohio.
Ould (U.S.A.) Ltd., John, 519 S. 5th Ave., Mt. Vernon N. Y.
OverHead Heaters, Inc., 1612 Book Bldg., Detroit 26, Mich.
Overland Sheet Metal Co., Overland 14, Mo.
Overland Lloyd H. 304 Court St. Marvyille, Tenn.

Overly, Lloyd H., 504 Court St., Maryville, Tenn.

Overly Mfg. Co., Greensburg, Pa.
Owens Co., H., 9300 Venice Blvd., Culver City, Calif.
Owens-Corning Fiberglas Corp., 717 Fifth Ave., New York 22,

Ozo Sales Corp., 15 Stiles St., New Haven, Conn.

PSC Inc., 303 Fifth Ave., New York, N. Y. Pacific Lumber Co., 100 Bush St., San Francisco 4, Calif. Pacific States Felt & Mfg. Co., Inc., 845 Howard St., San Francisco, Calif.

Pacific Water Heater Corp., 330 S. Del Mar Ave., San Gabriel,

Calif Packard Electric Div., General Motors Corp., Warren, Ohio. Packard Water Conditioners, Inc., 1720 Prudential Bldg., Jacksonville, Fla.

Packham Crimper Co., Machine Shop, Mechanics-Burgh, O. Packless Metal Hose, Inc., 730 S. Columbus Ave., Mt. Vernon,

Pafcon Products Corp., 30240 Lakeland Blvd., Wickliffe, O. Page Steel & Wire, Div. American Chain & Cable Co., Inc., P. O. Box 692, Monessen, Pa.

Paine Co., Pullerton & Westgate Rd., Addison, Ill. Palmer Engineering Co., Fan Div., P. O. Box 812, Green Bay, Wis.

Palmer Industries, Inc., 2235 W. McDowell Rd., Phoenix, Ariz. Palmer Mfg. Corp., 2200 W. Fillmore, Phoenix, Ariz. Palmer-Shile Co., 16078 Fullerton, Detroit, Mich. Palmer Thermometers, Inc., 2501 Norwood Av., Norwood, Cincinnati 12, Ohio.

Pal-O-Pak Insulation Co., Inc., Hartland, Wis.
PAM Co., 1951 N. W. Wilson St., Portland 9, Ore.
Panelbloc Div., Bettcher Mfg. Co., 3106 W. 61st St., Cleveland,

Paragon Corp., 560 Pangborn Blvd., Hagerstown, Md.
Paragon Elec. Co., 1600 - 12th St., Two Rivers, Wis.
Paramount Supply Co., 2727 N. 48th St., Lincoln 4, Nebr.
Park City Cornice Works, Inc., 729 Union Av., Bridgeport 7, Conn.

Parker Fittings & Hose Div., Parker-Hannifin Corp., 17325 Euclid Ave., Cleveland 12, O.

Parker-Kalon Div. of General American Transportation Corp.,

Clifton, N. J. Parker Rust Proof Co., 2177 E. Milwaukee, Detroit 11, Mich. Park Heating Specialties, 6212 Goodrich Ave., Minneapolis 16, Minn.

Park-Hill Chemical Corp., 29 Bertel Ave., Mt. Vernon, N. Y. Patco Mfg. Co., Inc., 231 N. Bread St., Philadelphia, Pa. Patlyn Gears & Transmissions Corp., 2456 W. 38th St., Chicago 32, III.

Patrol Valve Co., 2310 Superior Ave., N. E., Cleveland 14, Ohio

Patten Co., J. V., 550 DeKalb Av., Sycamore, Ill.
Paul-Lewis Laboratories, Inc., 4253 N. Port Washington Rd.,

Milwaukee 12. Wis. Payne Beverly Mfg. Co., 9242 Beverly Blvd., Beverly Hills, Calif.

Payne Co., The, 855 Anaheim-Puente Rd., La Puente, Calif. Peck, Stow & Wilcox Co., 1234 Center St., Southington, Conn. Pecora, Inc., 300-400 W. Sedgley Ave., Philadelphia 40, Pa. Pedrick Tool & Machine Co., 3640 N. Lawrence St., Philadelphia 60, Pa. delphia 40, Pa.

Peer, Inc., 1200 Milton St., Benton Harbor, Mich. Peerless Corp., 1853 Ludlow Av., Indianapolis 7, Ind. Peerless Electric Div., The H. K. Porter Co., Inc., 1401 W. Market St., Warren, O. Peerless Heater Co., Boyertown, Pa. Peerless Mfg. Div., Dover Corp., 1400 W. Ormsby Ave., Louis-

Peerless of America, Inc., 5800 N. Pulaski Rd., Chicago 30, Ill. Peerless Products Div., United Cooling Towers, Inc., 1421 E. Washington, North Little Rock, Ark.

Penberthy Mfg. Co., 1242 Holden Ave., Detroit 2, Mich. Penco Div., Alan Wood Steel Co., Oaks, Pa. Penn Boiler Div., Pebbco Industries Inc., Fruitville Rd., Lancaster, Pa.

Penn Brass & Copper Co., Erie, Pa. Penn Controls, Inc., Goshen, Ind. Penn Metal Co., Inc., 40 Central St., Boston 9, Mass.
Pennsalt Chemicals Corp., Three Penn Center, Philadelphia 2, Pa.
Penn Supply & Metal Corp., 1831 N. Fifth St., Philadelphia

Penn Ventilator Co. Inc., 3254 Goodman St., Philadelphia 40,

Pennsylvania Engineering Co., 1107-21 N. Howard St., Philadel-

Pennsylvania 23, Pa.

Pennsylvania Flexible Metallic Tubing Co., 72nd St. & Powers Lane, Philadelphia 42, Pa.

Pennsylvania Furnace & Iron Co., 313 Pine St., Warren, Pa.

Pennsylvania Range Boiler Co., 24th & Ellsworth Sts., Philadelphia 46, Pa.

Pennsylvania Refining Co., Ohio Div., 2686 Lisbon Rd., Cleveland 4, Ohio.

Pennsylvania Saw Corp., 810 Broad St., Newark, N. J. Pennsylvania Wire Glass Co., 1612 Market St., Philadelphia 3,

Perfection Furnace Pipe Co., Toledo 4, Ohio. Perfection Industries, Div. of Hupp Corp., 1135 Ivanhoe Rd., Cleveland 10, O.

Perfex Corp., 500 W. Oklahoma Av., Milwaukee 7, Wis. Perkinson, William J., 412-14 N. Wolcott Av., Chicago 22, Ill. Permacel, U. S. Highway #1, New Brunswick, N. J. Permanent Products, Inc., 102 W. Fairfield Ave., St. Paul 1. Minn.

Permatron Corp., 4840 N. Linder Ave., Chicago, Ill.
Permutit Co., Div. of Pfaudler Permutit Inc., 50 W. 44th St.,
New York 36, N. Y.

New York 36, N. Y.
Petrygraf Corp., Maywood, Ill.
Petersen Mfg. Co., DeWitt, Nebr.
Petro Div., Iron Fireman Mfg. Co., 3170 W. 106 St., Cleveland 11, Ohio.
Petroleum Chemicals, Inc., P. O. Box 969, Fresno, Calif.
Petroleum Solvents Corp., 9 E. 45th St., New York 17, N. Y.
Petrometer Corp., 43-22 Tenth St., Long Island City 1, N. Y.
Pettit & Sons Co., Inc., W. T., 1670 Keefer Rd., Youngstown 4,

Pfanstiehl Laboratories, Inc., 104 Lakeview Av., Waukegan, Ill. Pfeifer Bros., 508 Greenwich St., New York 13, N. Y. Phelps Dodge Copper Products Corp., 300 Park Ave., New York 22, N. Y.

Phelps Mfg. Co., 801 Thomas St., Little Rock, Ark. Pheoll Mfg. Co., Inc., 5700 Roosevelt Rd., Chicago 50, III. Philadelphia Gear Corp., Erie Av. and G St., Philadelphia 34, Pa Philadelphia Hoist Div. of Industrial Enterprises, Inc., Doyle and

N. Hamilton Sts., Doylestown, Pa. Philadelphia Thermometer Co., 6th & Cayuga Sts., Philadelphia 40, Pa.

Philco Corp., Tioga and C Sts., Philadelphia 34, Pa. Phillips Cooling Tower Co., Inc., 220 Dupont St., Brooklyn 22, NY

Phillips Drill Co., U. S. 12 and Liberty Trail, Michigan City, Ind.

Phoenix Building Products, Inc., 3133 N. Broad St., Philadelphia,

Photoswitch Div., Electronics Corp. of America, 1 Memorial Dr., Cambridge 42, Mass. Pilley Brush Co., S. 33rd, Fort Madison, Iowa.

Pioneer Co., 3131 San Fernando Rd., Los Angeles 65, Calif. Pioneer Sand & Gravel, 901 Fairview, Seattle, Wash.

Pioneer Tool Co., 905 - 9th St., Racine, Wis.

Pioneer Water Heater Corp., 3131 San Fernando Rd., Los Angeles 65, Calif. Piper Tool Co., 15930 Common Rd., Roseville, Mich.

Pittsburgh Coke & Chemical Co., 7750 W. 61st Pl., Summit, Ill. Pittsburgh Corning Corp., One Gateway Center, Pittsburgh 22, Pa.

Pittsburgh Lectrodryer Div., McGraw-Edison Co., P. O. Box 1766, Pittsburgh 30, Pa. Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh

Pittsburgh Steel Co., 800 Grant Bldg., Pittsburgh, Pa. Plasteel Products Corp., McAdam Ave., Washington, Pa. Plastergon Wall Board Co., Philadelphia Av., Buffalo 7, N. Y. Plastex Co., 3232 Cleveland Ave., Columbus 24, O. Plastic Products Co., 6459 Georgia Av., Detroit 11, Mich. Plastic Products Co., 6439 Georgia Av., Detroit 11, Mich.
Plastics Div., Eastman Chemical Products, Inc., Kingsport, Tenn.
Plastic Wire & Cable Corp., Jewett City, Conn.
Plummer Spray Equipment Co., 700 Filmore St., Napoleon, Ohio. Pollen Ex. 303 W. Monroe, Chicago, Ill. Polymer Corp., 2120 Fairmount Ave., Reading, Pa. Pop Rivet Div., United Shoe Machinery Corp., Route 110, Shel-

ton Conn Portable Electric Tools, Inc., 320 W. 83rd St., Chicago 20, Ill. Port City Machine & Tool Co., 3590 Airline Rd., Muskegon,

Porter-Cable Machine Co., 700 Marcellus St., Syracuse 4, N. Y. Potter Co., 1950 Sheridan Rd., North Chicago, Ill. Power-Flame Inc., Grandview, Mo. Power Line Fan Co., Div. of Chelsea Products Inc., Plainfield,

Power-Line Sales, Inc., 17630 W. Seven Mile Rd., Detroit 35, Mich.

Powers Regulator Co., 3400 Oakton St., Skokie 90, Ill. Power Tools Corp., 1425 Lakeside Ave., Cleveland 14, O. Precision Parts Corp., 400 N. First St., Nashville 7, Tenn. Precision Thermometer & Instrument Co., 1434 Brandywine St.,

Philadelphia 30, Pa. Precision Welder Mfg. Co., 2218 W. Lake St., Chicago 12, Ill. Preferred Utilities Mfg. Corp., 41 E. 42nd St., New York 17,

Premier Co., 755 Woodlawn Ave., St. Paul 16, Minn. Premier Furnace Co., Lock Box 150, Dowagiac, Mich. Premium Coal & Oil Co., 5830 Carthage Ave., Cincinnati 12, Ohio

Prepo Corp., Edgerton, Wis.
Presstite Div., American-Marietta Co., 3900 Chouteau St., St.
Louis 10, Mo.

Pressure Airduct Corp., 8130 N. St. Louis Ave., Skokie, Ill. Price Bros., Flexicore Div., E. Monument Ave., Dayton, Ohio Price & Rutzebeck, P. O. Box 30, Hayward, Calif. Pringle & Sons, R. A., 508 Catherine St., Walla Walla, Wash. Producers & Distributors, Inc., 1321 Hanover Ave., Allentown, Pa.

Products Research Co., 3126 Los Feliz Blvd., Los Angeles 39, Calif.

Profit Products Co., 120 S. LaSalle St., Chicago, Ill.

Progressive Tool & Mfg. Co., 850 Foxon Rd., East Haven, Conn.

Progressive Welder Sales Co., 915 Oakland Ave., Pontiac, Mich. Propellair Div., Robbins & Myers, Inc., Springfield, O. Protective Coatings, Inc., P. O. Box 3985, Strathmoor Station. Detroit 27, Mich.

Proto Tools, 2209 Santa Fe Ave., Los Angeles 58, Calif. Pryne & Co., Inc., N. Towne & Railroad Ave., Pomona, Calif. Puhl & Hepper Mfg. Co., Inc., 6400 W. Florissant Av., St. Louis 20, Mo.

Pullman Vacuum Cleaner Corp., 25 Buick St., Boston 15, Mass. Punch Products Corp., 3800 Highland Ave., Niagara Falls, N. Y. Purolator Products, Inc., 970 New Brunswick Ave., Rahway,

Pyle-National Co., Multi-Vent Div., 1334 N. Kostner Av., Chicago 51, Ill.

Pyramid Mouldings, Inc., 5353 W. Armstrong Av., Chicago 46.

Pyrolite Products Co., 1221-31 W. 74th St., Cleveland 2, Ohio.

Quaker State Metals Co., Box 1167, Lancaster, Pa. Quality Heating Supply Co., 1632 Race St., Cincinnati, O. Quass & Sons, Chas. E., 5018 Yukon St., N. W., Canton 8, O. Queen Products Div., King-Seeley Corp., 505 Front St., Albert

Quickdraft Co., Dueber-Hampden Bldg., P. O. Box 87, Canton, O. Quick Furnace & Supply Co., 215 Court Av., Des Moines 9, Iows:

Quick Plastics, Div. of Quick Industries, Inc., 1602 Cooper St., Jackson, Mich.

Quiet Automatic Burner Corp., 33-35 Bloomfield Ave., Newark 4, N. J.

Quiet-Heet Div. Burner Mfg. Corp. of America, 580 Hudson St., New York 14, N.Y Quigley Co., Inc., 415 Madison Ave., New York 17, N. Y. Quimby & Co., 70 Oakdale Rd., Chester, N. J.

R. B. Enterprises, Inc., 2284 Maxwell, Detroit 14, Mich. RCA-Whirlpool, Central Home Air Conditioning Div., Whirl-pool-Seeger Corp., St. Joseph, Mich.

RCS Tool Corp., 227-229 E. Front St., P. O. Box 661, Bloomington, Ill.

R&R Metal Products, Inc., 11622 S. Western Ave., Chicago, Ill. Racine Hydraulics & Machinery, Inc., 2000 Albert St., Racine,

Radex Corp., 2076 Elston Ave., Chicago 14, Ill.

Radex Corp., 2076 Elston Ave., Chicago 14, Ill.
Radiant Burners, Inc., 325 S. Main St., Lombard, Ill.
Radiant Electric Heat Co., 2515 S. Grand, E. Springfield, Ill.
Radiant Utilities Corp., 8817 18th Ave., Brooklyn, N. Y.
Radiation Furnace Corp., Benton Harbor, Mich.
Radiator Specialty Co., 1700-1900 Dowd Rd., Charlotte 1, N. C.
Ralph Mfg. Co., Inc., P. O. Box 188, Wadsworth, Ohio.
Ramco Manufacturing and Engineering, 5413 N. E. Columbia Blvd., Portland 18, Ore.
Ramset Fastening System, Winchester-Western Div., Olin Mathieson Chemical Corp., 289 Winchester Ave., New Haven 4, Conn.

Conn.

Ramtite Co., Div. S. Obermayer Co., 2563 W. 18th St., Chicago 8, III. Ran Appliance Corp., D. P., 1202 N. Alameda, Compton,

Calif. Ranco Inc., 601 W. 5th Ave., Columbus 1, Ohio. Randall Graphite Bearings, Inc., Greenlawn & Lake Sts., Lima,

Randolph-Page, Inc., 175 Fifth Ave., New York 10, N. Y. Ransburg Electro-Coating Corp., P. O. Box 23122, Indianapolis 23. Ind.

Ransome Torch & Burner Co., 4030 Hollis St., Emeryville 8, Calif. Rapidesign, Inc., P. O. Box 592, Glendale, Calif. Rawlplug Co., Inc., The, 200 Petersville Rd., New Rochelle,

Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J. Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
Rayfield-Staffco Burner Co., 2066 Canalport, Chicago 8, Ill.
Ray Oil Burner Co., 1301 San Jose Av., San Francisco 12, Calif.
Raytheon, Co., Industrial Apparatus Div., 87 S. Bedford St., Manchester, N. H.
Raytheon Mfg. Co., Commercial Equipment Div., 100 River St., Waltham 54, Mass.
Reading Body Works, Inc., 420 Gregg Ave., Reading, Pa.
Reading Crane & Hoist Corp., 2100 Adams St., Reading, Pa.
Recold Corp., 7250 E. Slauson Ave., Los Angeles 22, Calif.
Redmond Co., Inc., Subsidiary of Controls Co. of America, Owosso. Mich.

so, Mich.

Redmondson Corp., 630 Loucks Mill Rd., York, Pa. Red Wing Oil Burner Co., Inc., 12 Forest St., Medford 55, Mass. Reed Equipment Div., The Webb Corp., Box 549, Webb City. Mo

Reed Unit-Fans, Inc., 501 N. St. Patrick St., New Orleans 19, La. Rees Blow Pipe Mfg. Co., 2929 Fifth St., Berkeley 10, Calif. Reeves Steel & Mfg. Co., Div. of Empire-Reeves Steel Corp., Lock Box 672, Dover, Ohio.

Reflectal Corp., Subsidiary Borg-Warner Corp., 200 S. Michigan Ave., Chicago 4, Ill. Refractory & Insulation Corp., 120 Wall St., New York 5, N. Y. Refrigeration Appliances, Inc., 903 Lake St., Chicago 7, Ill. Refrigeration Research, Inc., 9901 E. Grand River, Brighton,

Rega Mfg. Co., 79 Mt. Hope Av., Rochester 20, N. Y. Register & Grille Mfg. Co., Inc., P. O. Box 113, Brooklyn 22,

Rehm-Schiess, Comb. Eng. Service Co., 119-25 164 St., Jamaica

34, N. Y. Reif-Rexoil, Inc., 37-41 Carroll St., Buffalo 3, N. Y.
Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg.,
Indianapolis 4, Ind.

Reiner & Campbell Co., Inc., 19 Euclid Ave. at Lockwood St., Box 5035, Newark 5, N. I.

Reitman Mfg. Co., 10319 Pearmain, Oakland, Calif. Reliable Equipment & Supply Co., 727 Fairfield Ave., Kenilworth, N. J. Reliable Mach. & Mfg. Co., Inc., 415 H Ave., N. W., Cedar

Rapids, Iowa. Reliance Automatic Lighting Co., 1929 Mead St., Racine, Wis. Reliance Electric & Engineering Co., 24701 Euclid Ave., Cleveland 17. O.

Reliance Refrigerating Machine Co., 3401 N. Kedzie Ave., Chicago, Ill. Relton Corp., 99 N. Lotus Ave., P. O. Box 5546, Pasadena, Calif.

Remco, Inc., Zelienople, Pa. Remington Air Conditioning Div., Remington Corp., Auburn, N. Y. Remington Arms Co., Inc., 939 Barnum Ave., Bridgeport 2, Conn. Rempe Co., 340 N. Sacramento Ave., Chicago 12, Ill. Rentip, Inc., Route 4, Osborn Rd., Knoxville, Tenn. Replacement Parts, Inc., 20850 St. Clair Ave., Euclid 17, O. Republic Heater Corp., 2231 Randolph St., Huntington Park, Republic Products Co., 7420 State Rd., Philadelphia 36, Pa. Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown Republic Rubber Div., Lee Rubber & Andrew L., Ohio.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Republic Steel Corp., Alloy Steel Div., Massillon, O.
Republic Steel Corp., Truscon Div., Albert St., Youngstown 1, O.
Res-Dent-Air Div., Peden Equipment Co., 4512 Mt. Vernon, Houston, Tex. Research Appliance Co., Rt. 8 at Craighead Rd., Box 307, Allison Park, Pa.
Research Products Corp., 1015 E. Washington Av., Madison, Resolite Corp., Zelienople, Pa. Reuland Electric Co., 3001 W. Mission Rd., Alhambra, Calif. Reuter Mfg. Co., N88-W 16761 Appleton Ave., P. O. Box 275, Menomonee Falls, Wis. Revco, Inc., Deerfield, Mich.
Revco, Inc., Deerfield, Mich.
Revcor, Inc., 251 Edwards St., Carpentersville, Ill.
Revere Copper and Brass, Inc., 230 Park Av., New York 17, N.Y.
Revere Copper & Brass Inc., Foil Div., 196 Diamond St., Brooklyn 22, N. Y. Revere Products, Inc., 9145 E. Forest Av., Detroit 13, Mich. Revere Products, Inc., 9145 E. Forest Av., Detroit 13, Mich. Rex Metal-Craft, Inc., 1717 Gent St., Indianapolis, Ind. Rex Roto Corp., 1109 Decker Rd., Walled Lake, Mich. Reynolds Electric Co., 3000 River Rd., River Grove, Ill. Reynolds Gas Regulator Co., 1416 Lincoln St., Anderson, Ind. Reynolds Metals Co., Richmond 18, Va. Reynolds Ventilator Mfg. Corp., 7530 N. Sheridan Rd., Chicago 26, Ill Reznor Mfg. Co., 6 Union St., Mercer, Pa. Rheem Mfg. Co., 7600 S. Kedzie Ave., Chicago 52, Ill. Rhoads Engineering Corp., 9063 Washington Blvd., Culver City, Calif Rhodes, Inc., M. H., 30 Bartholomew Av., Hartford 6, Conn. Richards-Wilcox Mfg. Co., 275 Third St., Aurora, Ill. Rich Fan Mfg. Co., Phil, 2900 Caroline St., Houston 4, Tex. Richkraft Co., The, 510 N. Dearborn St., Chicago 10, Ill. Richmond Plumbing Fixtures Div., Rheem Mfg. Co., 16 Pearl St., Metuchen, N. J. Riggin Metal Products, Box 267, Kankakee, Ill. Rigidbilt, Inc., 9240 Belmont Ave., Franklin Park, Ill. Rigidized Metals Corp., 699-P Ohio St., Buffalo 3, N. Y. Rinehart Inc., Richmond, Ind. Ritter Pattern & Casting Co., Inc., 120 Walker St., New York 13, Rittling Corp., Rittling Bldg., Buffalo 5, N. Y. Ro-An Heat Reclaimer Corp., 16 S. Ketcham Ave., Amityville, Robbins & Myers, Inc., 1345 Lagonda Av., Springfield 99, Ohio. Roberson Inc., 7116-220th, SW, Mountlake Terrace, Wash. Robert Mfg. Co., 9035 Venice Blvd., Los Angeles 34, Calif. Roberts-Gordon Appliance Co., 44 Central Ave., Buffalo 6, N. Y. Robertshaw-Fulton Controls Co., 911 E. Broad St., Richmond 19,

Va. Robertson Co., H. H., 2400 Farmers Bank Bldg., Pittsburgh 22, Robertson Machine and Foundry, 56 Rano St., Buffalo, N. Y. Robinsir Mfg. Corp., Edgerton, O. Robinson Clay Product Co., 65 W. State St., Akron 9, O. Robinson Clay Product Co., 65 W. State St., Akron 9, O. Robinson Insulation Co., Box 1419, Great Falls, Mont, Robinson Technical Products, Inc., Teterboro, N. J. Robinson Tube Fabricating Co., 525 E. 6th St., Conway, Ark. Robinson Ventilating Co., Zelienople, Pa. Rochester Mfg. Co., Inc., 66 Rockwood St., Rochester 10, N. Y. Rockford Brass Works, 700 S. Main St., Rockford, Ill. Rockford Blass Wolks, 700 S. Main St., Rockford, Rockford, III.
Rock Island Register Co., 2435 Fifth Ave., Rock Island, III.
Rockwell Co., W. S., 2546 Eliot St., Fairfield, Conn.
Rockwell Mfg. Co., Meter and Valve Div., 400 N. Lexington
Ave., Pittsburgh 8, Pa.

Roessing Mfg. Co., 1616 Noble St., Sharpsburg, Pittsburgh 15,

Rohm & Haas Co., 222 W. Washington St., Philadelphia, Pa. Rolas Products Corp., 156 Avon Ave., Newark 8, N. J. Rome-Turney Radiator Co., Canal St., Rome, N. Y. Romla Co., 13101 S. Main St., Los Angeles 61, Calif. Roofing & Supply Co., 1409-15 Fort St., Chattanooga, Tenn. Roper Corp., Geo. D., Blackhawk Park Av., Rockford, Ill. Rosebraugh Co., W. W., 680 17th St., S. E., P. O. Box 2008, Rose Mfg. Co., 2700 W. Barberry Pl., Denver 4, Colo.

Rossoe Mfg. Co., 413 Fairview Ave. N., Seattle, Wash. Ross Sprinkler Co., 4333 Temple City Blvd., Rosemead, Calif. Rotary Concrete Drill Co., 650 S. Arroyo Parkway, Pasadena 2, Calif. Roth Co., Roy E., Turbine Pump Div., Rock Island, Ill.
RotoMetals, 980 Harrison St., San Francisco 7, Calif.
Rotor Tool Co., 26300 Lakeland Blvd., Cleveland 32, Ohio.
Roto-Table Div. of the Fogarty Mfg. Co., 2605 E. Third St., Dayton 3, O.
Round Oak Co., Inc., Dowagiac, Mich.
Round Tube and Cores Co., 811 N. Peoria St., Chicago 22, Ill.
Royal-Apex Mfg. Co., Inc., 1389-97 Atlantic Ave., Brooklyn 16, Royersford Foundry & Machine Co., 55 Main St., Royersford. Royson Engineering, Hatboro, Pa.
Rubatex Div., Great American Industries, Inc., Bedford, Va.
Rubber and Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
Ruberoid Co., 500 Fifth Av., New York 36, N. Y.
Ruby Chemical Co., 74 McDowell St., Columbus 16, Ohio.
Ruemelin Mfg. Co., 3860 N. Palmer St., Milwaukee 12, Wis.
Ruoff & Sons, Inc., 9 Chestnut Ave., Bellmawr, N. J.
Russell, Burdsall & Ward Bolt & Nut Co., 100 Midland Ave.,
Port Chester, N. Y.
Russell, Coil Co. 4403 S. Allport Ave., Sonta Fo Springer, Calif. Royson Engineering, Hatboro, Pa. Port Chester, N. Y.
Russell Coil Co., 8403 S. Allport Ave., Santa Fe Springs, Calif.
Russell Coi., F. C., Columbiana, O.
Rusticide Products Co., 3125 Perkins Ave., Cleveland 14, O.
Rust-Oleum Corp., 2425 Oakton St., Evanston, Ill.
Ruthman Machinery Co., 1809 Reading St., Cincinnati 2, O.
Rutland Fire Clay Co., 91 Curtis Av., Rutland, Vt.
Ruud Mfg. Co., 2025 Factory St., Kalamazoo, Mich.
Rybolt Heater Co., 615 Miller St., Box 590, Ashland, Ohio.
Ryerson & Son, Inc., Insept. T. 2558, W. 16th St. Chicago 80 Ryerson & Son, Inc., Joseph T., 2558 W. 16th St., Chicago 80,

Billings, Mont.

Rymco, Inc., 1627 W. Fort St., Detroit 16, Mich. Ryniker Steel Products Co., Northern Pacific Industrial Site,

S & C Mfg. Co., 6245 Wiehe Rd., Cincinnati, O. S-K Co., Inc., Admiral Wilson Blvd., Camden, N. J. SKF Industries, Inc., Front St. and Erie Av., Philadelphia 32, Pa. S.O.S. Products Co., Inc., 346 Cumberland St., Brooklyn 38, N. Y. Safeguard Corp., Lansdale, Pa. Safety Electrical Equipment Corp., 1187 Dixwell Ave., New Safety Electrical Equipment Corp., 1187 Dixwell Ave., New Haven 14, Conn.
Safety Nail Driver Corp., 70 Rosalie Ave., Clifton, N. J.
Safety Stack Heater Co., 93 Rockwell Place, Brooklyn 17, N. Y.
Saffell Air Conditioning Co., 5800 S. Central, Phoenix, Ariz.
St. Charles Mfg. Co., St. Charles, Ill.
St. Clair Foundry Corp., Beech & Wilson Sts., Centralia, Ill.
St. Clair Metal Products Co., 6700 Central Ave., Cleveland, O.
St. Clair Rubber Co., 440 E. Jefferson Ave., Detroit 26, Mich.
St. Louis Tool Co., 6100 Prescott St., St. Louis 15, Mo.
Sampson Scientific Corp., 2830 W. Lake St., Chicago 12, Ill.
Samson Drill Co., 443 E. Tremont Ave., Bronx 57, N. Y.
Samuel Stamping & Enameling Co., Manufacturers Rd., Chattanooga, Tenn. nooga, Tenn. San Angelo Foundry & Machine Co., Box 1152, 1000 Upton San Ángelo Foundry & Machine Co., Box 1152, 1000 Upton St., San Angelo, Tex.
Sandberg Mfg. Co., 3850 N. W. Yeon Av., Portland 10, Ore.
Sanders, J. A., Box 123, Fulton, N. Y.
Sands Mfg. Co., 5407 Sweeney, Cleveland 27, O.
Saran Lined Pipe Co., 2415 Burdette Ave., Ferndale 20, Mich.
Sarco Co., Inc., Empire State Bldg., New York 1, N. Y.
Sarcotherm Controls, Inc., Empire State Bldg., New York 1.
Sargent EnginAiring Co., 1375 E. 43th St., Cleveland, O.
Sauereisen Cements Co., 1045 N. Canal St., Pittsburgh 13, Pa.
Savage Co., W. J., 912 Clinch Ave., S. W., Knoxville 16, Tenn.
Saw-Mor Tool & Blade Co., 520 Machinery Hall Bldg., Chicago
6. III. 6. III. Schaefer Brush Mfg. Co., 115-117 W. Walker, Milwaukee 4, Schaefer Chemical Products Co., 3000 Carrollton Rd., Saginaw, Mich. Schecter Bros. Co., N. W. Cor. Hancock & Huntington Sts., Philadelphia 33, Pa. Schild Mfg. Co., P. O. Box 412, Beaver Dam, Wis. Schiller Mfg. Co., 409 E. Jefferson, Detroit 26, Mich. Schill Mfg. Co., 302 Mansfield St., Crestline, Ohio. Schneible Co., Claude B., 2827 25th St., Detroit 16, Mich. Schott Metal Products Co., 2225 Lee Rd., Akron 6, O. Schutte and Koerting Co., Cornwells Heights, Bucks County, Pa. Schwab Furnace Co., 332 W. Florida St., Milwaukee 4, Wis.

Schwab Safe Co., East Main at Earl Ave., Lafayette, Ind. Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. Scotco Products Co., Beverly, Mass.

Scott, Inc., Hermon Hosmer, 111 Powder Mill Rd., Maynard, Mass

Scott Paper Co., Chester, Pa.

Scovill Mfg. Co., P. O. Box 1820, Waterbury 20, Conn.

Scully Signal Co., 174 Green St., Melrose, Mass

Scully Signal Co., 174 Green St., Melrose, Mass. Seamlex Co., Inc., 41-23 24th St., Long Island City 1, N. Y. Sebrell Corp., J. B., 300 S. Los Angeles St., Los Angeles 13, Calif. Seco-Lite Mfg. Co., 4916 Easton Av., St. Louis 13, Mo. Seelye Craftsmen, The, 984 Central Ave., Minneapolis, Minn. Seiberling Rubber Co., Plastics Div., Newcomerstown, O. Selck & Co., Walter E., 225 W. Hubbard St., Chicago 10, Ill. Senrac, Applegate Rd., Madison, Wis. Sequoia Mfg. Co., 1090 Brittan Ave., San Carlos, Calif. Service Machine Co., Inc., 466 Miller St., Elizabeth 4, N. J. Service and Supply Co., 914 W. Wisconsin Ave., Appleton, Wis

Wis.

Setton Name Plate Co., 50 Fitch St., New Haven 15, Conn. Sette Products Co., 1241 High St., Oakland 1, Calif. Severson Mfg. & Supply Co., 3425 W. Clybourn, Milwaukee 8, Wis.

Sexauer Mfg. Co., Inc., J. A., 2503-05 Third Ave., New York 51, N. Y.

Shafer Bearing Div., Chain Belt Co., 801 Burlington Ave., Downers Grove, Ill. Shakeproof Div., Illinois Tool Wks., St. Charles Rd., Elgin,

III.
Shalicross Controls, Inc., P. O. Box 497, Markesan, Wis.
Shana Mfg., Inc., 1901 W. Roosevelt Rd., Chicago, III.
Sharon Steel Corp., Drawer 537, Sharon, Pa.
Sheet Metal Mfg. Co., 7 E. Henry St., Youngstown 2, O.
Sheet Metal Mfg. Co., Inc., 953 Myrtle Av., Brooklyn 6, N. Y.
Sheet Metal Specialty Div., Follansbee Steel Corp., P. O. Box
567, Follansbee, W. Va.
Shell Oil Co., 50 W. 50th St., New York 20, N. Y.
Shelton Co., New Haven, Conn.
Shenango Refractories Co., New Castle, Pa.
Shepard, Herman, P. O. Box 23, Newton Upper Falls 64, Mass.
Shepard Niles Crane & Hoist Corp., 1410 Schuyler Av., Montour Falls, N. Y.

tour Falls, N. Y.

Sheridan-Gray, Inc., 24701 Crenshaw Blvd., Torrance, Calif. Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland I, Ohio

Shielded Stud Welding Co., 2043 Gaylord St., Long Beach 13, Calif.

Shoemaker Mfg. Co., 3709 - 12th St., N. E., Seattle, Wash.

Siebring Mfg Co., George, Iowa.
Siegler Corp., 900 Wilson Ave., Centralia, Ill.
Sight Feed Generator Co., 38 E. Third St., West Alexandria,

Signet Controls, 3205 S. E. 13th Ave., Portland 2, Ore. Silence, Inc., 130 Main St., Farmingdale, N. Y. Silent Automatic Products, 3170 W. 106 St., Cleveland 11, O. Silent-Flame Products, Blue Point Electronics Corp., Blue Point,

Silent Glow Oil Burner Co., 850 Windsor St., Hartford, Conn. Silent Sioux Corp., Orange City, Iowa.
Silvercote Products, Inc., 161 E. Erie St., Chicago 11, Ill.
Silver Creek Precision Corp., Silver Creek, N. Y.

Simonds Saw & Steel Co., 470 Main St., Fitchburg, Mass. Simplex Distributors, 239 Waverly Ave., Brooklyn, N. Y. Simplex Mfg. Co., 200 N. Main St., Fond du Lac. Wis. Simplex Oil Heating Corp., 7901 Oxford Av., Philadelphia 11,

Fa.
Simpson Co., 1060 E. 11th St., Oakland 6, Calif.
Simpson Electric Co., 5200 W. Kinzie St., Chicago 44, Ill.
Sioux Steel Co., Sioux Falls, S. Dak.
Sipe & Co., James B., 118 Vanadium Rd., Pittsburgh 16, Pa.
Skil Corp., 5033 Elston Av., Chicago 30, Ill.
Skinner Electric Valve Div., The Skinner Chuck Co., 95 Edgewood Ave., New Britain, Conn.

Skinner Heating & Ventilating Co. Div. Young Sales Corp., 1954 N. 9th St., St. Louis 6, Mo.

Skuttle Mfg. Co., Milford, Mich. Slip-On Co., The, 436 Magnolia, N. W., Atlanta, Ga. Slip-On, Inc., 158 Edwards Blvd., Long Beach, N. Y. Sloane Mfg. Co., 7606 N. Clybourn Ave., Sun Valley, Calif. Sly Mfg. Co., W. W., 4700 Train Ave., Cleveland 1, O. Small Motors, Inc., 2076 Elston Av., Chicago 14, Ill.

Smithco Engineering, Inc., Cooling Tower Div., P. O. Box 7264. Houston 8, Tex.

Smith Co., J. B., 3327 B St., Philadelphia 34, Pa. Smith Corp., A. O., Motor Div., 531 N. 4th St., Tipp City, O. Smith Corp., A. O., Permaglas Div., Kankakee, Ill. Smith Filter Corp., 2nd Av., Moline, Ill.

Smith, Inc., E. B., 1311 Robin Rd., St. Petersburg, Fla. Smith, R. E., 1122-30 Elizabeth, P. O. Box 78, Waukegan, Ill. Smith Welding Equipment Corp., 2619 Fourth St., S. E., Minneapolis 14. Minn.

Smooth-on Mfg. Co., 568-574 Communipaw Av., Jersey City 4,

Snap-On Mfg. Co., 1028 Blue Island Av., Chicago, Ill.

Snap-on Tools Corp., Kenosha, Wis.
Snap-on Tools Corp., Kenosha, Wis.
Snappy Inc., 620 W. Main St., Detroit Lakes, Minn.
Solfo Paint Mfg. Co., 821 Pennington Ave., Trenton, N. J.
Somers Corp., 6063 Wabash Av., Detroit 8, Mich.
Sonneborn Sons, Inc., L., 404 Fourth Ave., New York 16, N. Y.
Sonner Burner Co., 412-420 E. 6th Ave., Winfield, Kans.
Sonobond Corp., Subsidiary of Aeroprojects, Inc., 310 E. Rosedale Ave., West Chester, Pa.

Sonoco Products Co., Construction Products Div., Hartsville,

Soreng Div., Controls Co. of America, 9655 Soreng Ave., Schiller Park, Ill.

Soss Míg. Co., 21777 Hoover Rd., Detroit 13, Mich.

Sound Reduction Corp., 133 Pitkin Ave., East Hartford, Conn.

South Bend Air Products, Inc., 415 S. St. Joseph St., South Bend

Southbridge Roofing Co., Inc., Dudley Road, Southbridge, Mass. Southco Div., South Chester Corp., Lester, Pa. Southern Heater Corp., 133 E. Palmer Ave., Compton, Calif. Southern Mist Products Co., 945 Pitner Ave., Evanston, Ill. Southern Name Plate Shop, 4601 LaFaye St., New Orleans 22,

Southern Screw Co., P. O. Box 1360, Statesville, N. C. Southport Paint Co., Div. Wesson Oil & Snowdrift Co., Inc., Savannah, Ga.

Southwest Mfg. Co., Box 151, Aurora, Mo. Southwest Plastic Pipe Co., P. O. Box 117, Mineral Wells, Tex. Sparkler Mfg. Co., Mundelein, Ill.

Spartan Electric Radiator Corp., 52-55 74 St., Maspeth 78, N. Y. Spartan Saw Works, Inc., Springfield 7, Mass. Spear Stove & Heater Co., James, 1000 Diamond St., Philadelphia 22, Pa.

Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio.
Speedway Mfg. Co., Div. of Thor Power Tool Co., 1421 Barnsdale, LaGrange Park, Ill.
Speedy Mfg. & Sales Co., 523 N. Bivins, Amarillo, Tex.
Spencer Turbine Co., 486 New Park Av., Hartford 6, Conn.

Sperti Faraday, Inc., Adrian, Mich.

Sperti Faraday, Inc., Adrian, Mich.

Spickler Co., Inc., R. D., 620 Fayette Ave., Mamaroneck, N. Y.

Spincraft, Inc., 4158-M W. State St., Milwaukee 8, Wis.

Sporlan Valve Co., 7525 Sussex Av., St. Louis 17, Mo.

Sprague Products Co., North Adams, Mass.

Spray Engineering Co., 100 Cambridge St., Burlington, Mass.

Spraying Systems Co., 3201 Randolph St., Bellwood, Ill.

Sprayon Flake Co., 2715 Irving Park Blvd., Chicago 18, Ill.

Sprayon Products, Inc., 2075 E. 65th, Cleveland, O.

Spun Steel Div., Automatic Steel Products, Inc., 1201 Camden

Spun Steel Div., Automatic Steel Products, Inc., 1201 Camden Av., S. W., Canton 6, Ohio. Square D Co., Distribution Equipment Div., 1601 Mercer Rd.,

Lexington, Ky. Square D Co., Industrial Controller Div., 4041 N. Richards St.,

Milwaukee 12, Wis.
Squires Construction Co., The, 3162 E. 93rd St., Cleveland, O. Stahl Metal Products, 4750 W. 160th St., Cleveland, O.

Stamco Inc., New Bremen, Ohio. Stanat Mfg. Co., Inc., 434 Shames Dr., Westbury, L. I., N. Y. Standard Asbestos Mfg. Co., 860 W. Evergreen Ave., Chicago 22. Ill.

Standard Automatic Oil Burner Co., 21-23 Broad St., Newark 4. N. I.

Standard Electric Mfg. Co., Inc., West Berlin, N. J. Standard Fuel Engineering Co., 667 Post Av., S., Detroit 17,

Standard Metal Fabricating Co., 7311 Jones St., P. O. Box 1312, Omaha, Nebr. Standard Packaging Corp., Johnston Foil Div., 6100 S. Broadway,

St. Louis 11, Mo. Standard Power Groove Machine Corp., 23 Leonard, New York

13. N. Y. Standard Refrigeration Co., 3535 Fillmore St., Chicago 24, Ill. Standard Stamping & Perforating Co., 3137 W. 49th Pl., Chicago. Stanley Electric Tools Div., The Stanley Works, 480 Myrtle St., New Britain, Conn.

Stanthony Corp., 5341 San Fernando Rd., W., Los Angeles 39. Starbuck & Sons, Inc., R. M., P. O. Box 1318, Hartford 1, Conn. Star Expansion Bolt Co., 142 Liberty St., New York 6, N. Y. Star Expansion Industries Corp., Mountainville, N. Y. Stark & Co., H. W., 5668 Geddes Rd., Ann Arbor, Mich.

Starline Co., 119 Franklin St., Dayton 2, Ohio

Star Stainless Screw Co., 195 Union Ave., Paterson, N. J. Star Woolen Co., Cohoes, N. Y. State Stove and Mfg. Co., 509 - 25th Ave., N., Nashville, Tenn. Stearns Co., N. C., P. O. Box 1234, Shreveport, La. Stearns Lumber Co., A. T., 98 Taylor St., Boston, Mass. Steel City Furnace Corp., Hoeveler and Railroad Sts., Springdale, Steelcraft Mfg. Co., 9017 Blue Ash Rd., Rossmoyne, O. Steele Mfg. Co., 445 Winchester Ave., Ashland, Ky. Steel Products Supply Co., 751 Roosevelt Rd., Glen Ellyn, Ill. Steel & Tubes Div., Republic Steel Corp., 224 E. 131st St., Cleveland 8, Ohio. Steffens-Amberg Co., 262 Morris Av., Newark 3, N. J.
Steinen Mfg. Co., Wm., 43 Bruen St., Newark 5, N. J.
Steinhorst & Sons, Inc., Emil, Utica, N. Y.
Stephens-Adamson Mfg. Co., Ridgeway Av., Aurora, Ill.
Sterling Electric Motors, Inc., 5401 Telegraph Rd., Los Angeles 22. Calif. Sterling Foundry Co., P. O. Box 457, Sterling, Ill.
Stern Bros. Plumbing Supply Co., 2323 E. 67th St., Cleveland, O. Stewart-Hall Chemical Corp., 222 Washington St., Mt. Vernon, Stewart Industries, Inc., 320 E. St. Joseph St., Indianapolis 2, Stewart-Warner Corp., Heating and Air Conditioning Div., Lebanon, Ind. Stic-Klip Mfg. Co., Inc., 114 Regent St., Cambridge 40, Mass. Stiles Karlsonite Corp., 1550 Grand Ave., Waukegan, Ill. Stoddard Industries, Inc., 3383 E. Layton Ave., Cudahy, Wis. Stokar-Ola Mfg. Co., 2400 S. Adams St., Peoria, Ill. Stortz & Son, Inc., John, 210 Vine St., Philadelphia 6, Pa. Stossel & Sons Co., Carl, Front Royal, Va. Stow Mfg. Co., 445 State St., Binghamton, N. Y.
Straitsville Brick Co., P. O. Box 381, New Straitsville, O.
StranSteel Corp. Div., National Steel Corp., Tecumseh Dr., Ecorse, Mich. Stratton & Terstegge Co., P. O. Box 1589, Louisville 1, Ky. Structa-Lung Co., 36407 Euclid Ave., Willoughby, O. Structoglas Inc., Subsidiary International Molded Plastics, Inc., 4387 W. 35th St., Cleveland 9, O. Stueck, Inc., W. Whitney, Ferry St., Old Saybrook, Conn. Sudbury Laboratory, Sudbury, Mass.
Sullivan Valve & Engineering Co., P. O. Box 1931, Butte, Mont.
Sundial Electric Co., 87-49 130th St., Richmond Hill 18, N. Y.
Sundstrand Engineering Co., 2416 4th Ave., Rock Island, Ill.
Sunstrand Hydraulics, 2210 Harrison Ave., Rockford, Ill. N. Y. Super Electric Products Corp., 1057 Summit Ave., Jersey City, land 35, O.

Sundstrom Pressed Steel, 8030 S. Chicago Ave., Chicago, Ill. Sun-Fire Stoker Corp., 802 E. Eighth St., New Albany, Ind. Sunny Sue Burner Co., 117 Bertram Pl., Syracuse, N. Y. Sun-Ray Burner Mfg. Corp., 139-24 Queens Blvd., Jamaica 2, Sun-Tron Corp., 7435 Wilson Ave., Chicago 31, Ill. Sunwarm, Inc., P. O. Box 263, Kingsport, Tenn. Superbo Mfg. Co., 4090 N. Mission Rd., Los Angeles 33, Calif.

Superior Flux & Mfg. Co., 1536 St. Clair Ave., Cleveland 14, O. Superior Metal Fabricating Co., Pleasant Ave., Niles, Ohio. Superior Pneumatic & Mfg., Inc., 13800 Enterprise Ave., Cleve-

Superior Safety Furnace Pipe Co., 5820 Forsythe Av., Detroit 2, Mich. Superior Valve and Fittings Co., 1509 W. Liberty Ave., Pitts-burgh 26, Pa.

Super Radiator Corp., 6714 Walker St., Minneapolis 26, Minn. Super-Slugger Co., 1000 Broadway, Bedford, O.
Super Steel Products Co., 1244 N. 4th St., Milwaukee 12, Wis.
Supreme Electric Products Corp., 194 Vassar St., Rochester 7,

Sure Comfort Furnace Co., 900 S. Des Plaines Ave., Forest

Surface Chemicals Inc., 1101 Thompson Ave., McKees Rocks, Sutton Corp., O. A., 1812 W. Second St., Wichita 2, Kans. Swaine Mfg. Co., Fred J., 1300 N. Seventh St., St. Louis 6,

Swan Humidifier Co., Inc., 149 Bath St., Ballston Spa, N. Y. Swan Mfg. Co., 1801 W. 26th St., Vancouver, Wash. Swartwout Fabricators, Inc., 100 E. North St., Kokomo, Ind. Swift Ohio Corp., 800 S. Leighton, Kenton, O. Swirling Oil Burner Mfg. Corp., 105-20 New York Blvd., Ja-

maica 33, N. Y. Switson Industries Ltd., 201 Major St., Welland, Ont., Canada Synchronous Flame, Inc., Walworth, Wis. Syncromatic Corp., 1141 Tenth St., Watertown, Wis.

Syntron Co., 275 Lexington, Homer City, Pa. Syrall Mfg. Co., 511 N. State, Syracuse 3, N. Y.

TOT Towers Co., 5220 Lawndale, Houston 23, Tex.
Tahlen Hammer Co., 1729 First Ave., S., Seattle 4, Wash.
Tamms Industries Co., 228 N. LaSalle St., Chicago 1, Ill.
Tankit Co., Inc., 560 Belmont Ave., Newark, N. J.
Tannewitz Works, Inc., 315 Front Av., N. W., Grand Rapids 2,

Taylor Instrument Companies, 95 Ames St., Rochester 1, N. Y. Taylor-Winfield Corp., 1052 Mahoning Av., N. W., Warren, Ohio.

Technical Filter Co., 2719 S. Poplar Ave., Chicago 8, Ill. Techniflex Corp., Port Jervis, N. Y. Tecumseh Products Co., Tecumseh, Mich. Tedoo Cooling Towers Div., Engineering & Development Co., Inc., 2406 South 7th Blvd., St. Louis, Mo.

Telechron, Inc., Ashland, Mass.
Tel-Tru Mfg. Co., 408 St. Paul St., Rochester 3, N. Y.
Temco, Inc., 4104 Park Av., Nashville 9, Tenn.
Temperature Appliance Mfg. Corp., Box 281, Sebastopol, Calif.
Temperature Control, Inc., 676 Hemphill Ave., N. W., Atlanta,

Temprite Products Corp., East Maple Rd., Birmingham, Mich. Tennessee Coal & Iron Div., U. S. Steel Corp., Box 599, Fairfield, Ala.

Tennessee Fabricating Co., 1490 Grimes, Memphis 6, Tenn.
Tennessee Plastics, Inc., 204 E. Maple St., Johnson City, Tenn.
Tennessee Products & Chemical Corp., 2611 West End Ave., Nashville 5, Tenn.

Nashville 5, Tenn.
Tenney Engineering Inc., 1090 Springfield Rd., Union, N. J.
Texas Products Mfg. Co., 919 Taylor Ave., Waco, Tex.
Tesco, Inc., 1403 E. 5th Court, Tulsa 20, Okla.
Thatcher Furnace Co., Centre St., Garwood, N. J.
Thermac Co., P. O. Box 775, Corona, Calif.
Thermador Electrical Mfg. Co., Div. of Norris-Thermador
Corp., 5119 District Blvd., Los Angeles 22, Calif.
Therm-Air Mfg. Co., 1000 N. Division St., Peckskill, N. Y.
Thermal Agency, 11 N. Jackson, Houston, Tex.
Thermco Instrument Corp., U. S. 20, LaPorte, Ind.
Therm Gas Generator Co., Inc., 2105 Westlake Ave., Seattle 1,
Wash.

Wash.

Therm-O-Disc, Inc., S. Main St., Rd., P. O. Box 1538, Mansfield,

Thermoid Co., 200 Whitehead Rd., Trenton 6, N. J. Therm Oil Burner Co., 2105 Westlake Ave., Seattle 1, Wash. Thermolok Mfg. Co., Inc., 1099 Tulip Ave., Franklin Sq., L.I.,

Thermo-Products, Inc., North Judson, Ind.
Thermo-Ray Corp., 26 Ave. B, Newark, N. J.
Thermotank, Inc., 11191 Lappin Ave., Detroit 34, Mich.
Therm-O-Wheel, Inc., 10-10 50th Ave., Long Island City 1,

Thomas Industries, Inc., Electric Sprayit Div., 1415 Illinois Ave., Sheboygan, Wis.
Thompson Mfg. Co., A. F., 1040 Vernon St., Huntington, W.

Thompson & Co., 1085 Allegheny Av., Oakmont, Pa. Thompson Products, Inc., Valve Div., 1455 E. 185th St., Cleveland 10, O.

Thompson & Sons Co., Henry G., 277 Chapel St., New Haven 5,

Thompson & Sons, Inc., 8130 W. 47th St., Lyons, Ill.
Thor Metal Products Co., Inc., Box 218 Eastwood Station,
Syracuse 6, N. Y.
Thor Power Tool Co., 175 N. State, Aurora, Ill.
Thor Tool & Die Co., 865 Estabrook St., San Leandro, Calif.
Tierney Rotor Ventilator Co., 239 4th Ave., S., Minneapolis,

Tiffin Art Metal Co., Box 807, Tiffin, Ohio.

Time Saver Tools, Inc., Mundelein, Ill.
Time Tested Products Co., 1231 Peden, Houston 6, Tex.
Timken Roller Bearing Co., The, 1835 Dueber Ave., S. W., Canton 6 Ohio.

Tinit Mfg. Co., Inc., 1635-39 Platte St., Denver 2, Colo. Tinnerman Corp., Geo. A., 19920 Ingersoll Dr., Cleveland 16, O. Titanium Metals Corp. of America, 233 Broadway, New York, N. Y.

Titan Valve & Mfg. Co., 9913 Elk Av., Cleveland, Ohio. Titeflex, Inc., Hendee St., Springfield 4, Mass. Titus Mfg. Corp., Box 810, Highway 20 West, Waterloo, Iowa. Tjernlund Mfg. Co., 2140 Kasota St., St. Paul 14, Minn. Toledo Paint and Chemical Co., 33 Blucher St., Toledo, O. Tool Industries, Inc., 15438 Telegraph Rd., Detroit, Mich. Tool Products Corp., 377 Old Falls Blvd., North Tonawanda, Topflight Corp., 160 E. 9th Ave., York, Pa. Toridheet Div., Cleveland Steel Products Corp., 16025 Brookpark

Rd., Cleveland 35, O.
Torit Mfg. Co., 1133 Rankin St., St. Paul 16, Minn.
Tork Time Controls Inc., 1 Grove St., Mt. Vernon, N. Y.
Torq Electric Corp., 1002 Interstate St., Bedford, Ohio.
Torington Mfg. Co., Torrington, Conn.
Toungate & Coats, P. O. Box 9156, Austin 17, Tex.
Townsend Co., Engineered Fasteners Div., P. O. Box 71, Ell-

wood City, Pa. Trade-Wind Div., Robbins & Myers, Inc., 7755 Paramount Pl.,

Rico Rivera, Calif.

Trageser Copper Works, Inc., N. Y. International Airport (IDL), Jamaica 30, N. Y.

(IDL), Jamaica 30, N. Y.
Trane Co., The, LaCrosse, Wis.
Travaco Laboratories, 233 Condor St., East Boston 28, Mass.
Tremont Nail Co., Box 111, Wareham, Mass.
Triad Products Corp., 5121 N. Clark St., Chicago 40, Ill.
Triangle Engineering Co., P. O. Box 7464, Houston 8, Tex.
Triangle Mfg. Co., 706 Division St., Oshkosh, Wis.
Trind Products, Ltd., 1807-11 S. Clark St., Chicago 16, Ill.
Trian Leg. 1000 Island Ave. McKees Rocks. Pa.

Trion, Inc., 1000 Island Ave., McKees Rocks, Pa. Tri-Saw Corp., 2207 Hanley Industrial Court, St. Louis 17.

Tri-State Heating Supply Inc., 218-236 Murray St., Fort Wayne.

Tropic-Air Stoker Co., Box 236, Station A, Canton 5, Ohio.

Tropical Paint Co., 1244-86 W. 70th St., Cleveland, Ohio.

Truco Masonry Drilling, Wheel Trueing Co., 3200 W. Davison

Ave., Detroit, Mich. Ave., Detroit, Mich.
Tru-Heet Co., 532 Miller Ave., Trenton 10, N. J.
Truscon Laboratories, Caniff & Grand Trunk R. R., Detroit 11.
Tubenfin Coil Co., 220 Broadway, Houston 12, Tex.
Tube Manifold Corp., 415 Bryant St., North Tonawanda, N. Y.
Tubular Rivet & Stud Co., Wollaston 70, (Quincy) Mass.
Tuck-Aire Furnace Co., 2045 Evans Ave., San Francisco 24.

Tulsa Canvas Products Co., Inc., P.O. Box 2072, Tulsa, Okla.
Turco Products, Inc., P. O. Box 2649, Terminal Annex, Los
Angeles 54, Calif.
Turner & Seymour Mfg. Co., Lawton St., Torrington, Conn.
Turner Corp., 821 Park Av., Sycamore, Ill.

Tuthill Pump Co., 939 E. 95th St., Chicago 19, Ill. Tuttle & Bailey Div. of Allied Thermal Corp., 215 Warren St., New Britain, Conn.

Tuttle & Co., H. W., 805 S. Evans, Tecumseh, Mich. Twin Control Burner Mfg. Co., 3240 Barker Ave., New York 67. Tyler Mfg. Co., Inc., 1005 W. Arbor Vitae Ave., Inglewood 2,

Typhoon Air Conditioning Co., Div. of Hupp Corp., 505 Carroll St., Brooklyn 15, N. Y.

Typhoon Heat Pump Co., Div. Hupp Corp., 2001 Garcia Ave., P. O. Box 1123, Tampa, Fla.

# U

U.S. Aluminum Siding Corp., 10551 Anderson Pl., Franklin Park,

III.
U. S. Electrical Motors, Inc., 200 E. Slauson Av., Los Angeles.
U. S. Expansion Bolt Co., P. O. Box 827, York, Pa.
U. S. Pipe & Foundry Co., 3300 First Ave., N., Birmingham.
U. S. Rock Wool Co., 220 West So. Temple, Salt Lake City 1, Utah.

Uehling Instrument Co., 473 Getty Av., Paterson 3, N. J.
Ultralloy Corp., 53 W. Jackson Blvd., Room 521, Chicago 4,
Unexcelled Chemical Corp., 350 5th Ave., New York 1, N. Y.
Union Carbide Chemicals Co., Div. Union Carbide Corp., 30 E.
42nd St., New York 17, N. Y. Union Carbide Plastics Co., Div. of Union Carbide Corp., 30 E.

42nd St., New York 17, N. Y.
Union Electric & Mfg. Co., 1057 Summit Ave., Jersey City 7.
Union Mfg. Co., Inc., 6th & Washington Sts., Boyertown, Pa. Union Pump Co., Capitol Ave., S. W., Battle Creek, Mich.

Union Sheet Metal Supply Co., 16722 Miles Ave., Cleveland, O. Union Steel Chest Corp., LeRoy, N. Y.
Unique Mfg. Co., Inc., 221 W. Walton St., Chicago 10, Ill.

United Air Heaters, Inc., 317 Medical Arts Bldg., Seattle, Wash. United Cork Cos., Central Av. & N. J. Central R. R., Kearney,

United Electric Co., Wichita Falls, Texas. United Electric Controls Co., 85 School St., Watertown 72,

United Gilsonite Laboratories, Scranton 1, Pa. United Metal Hose Co., Inc., 36-01 43rd Av., Long Island City

United Mineral & Chemical Corp., 16 Hudson St., New York 13. United Sheet Metal Co., Inc., 540 S. Drexel Ave., Columbus.

(Also see "U. S.") United States Air Conditioning Corp., P. O. Box 360, Delaware,

United States Gauge Div. American Machine and Metals, Inc., Sellersville, Pa.
United States Gypsum Co., 300 W. Adams St., Chicago 6, Ill.
United States Mineral Wool Co., Stanhope, N. J.
United States Register Co., 344 E. Burnham St., Battle Creek,

United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

United States Steel Corp., 525 Wm. Penn Pl., Pittsburgh 30, Pa. United States Steel Supply Co., 208 S. LaSalle St., Chicago 4. United States Steel Supply Co., 208 S. LaSalle St., Chicago 4. United States Stoneware Co., 60 B. 42nd St., New York, N. Y. United Stencil Corp., 103 Rogers Ave., Brooklyn 16, N. Y. United Wire & Supply Corp., 1497 Elmwood Ave., Providence. Universal Blower Co., 1090 S. Adams Av., Birmingham, Mich. Universal Cyclops Steel Corp., Bridgeville, Pa. Universal Diffuser Corp., 38 Marbledale Rd., Tuckahoe, N. Y. Universal Electric Co., Owosso, Mich. Universal Insulating Machine Co., Winter Haven, Fla. Universal Metal Hose Co., 2133 S. Kedzie Ave., Chicago 23, Ill. Universal Pattern Layout & Template Development Co., 4007 Magnolia Pl., St. Louis 10, Mo. Universal Valve Co., P. O. Box 444 H. Elizabeth N. I.

Universal Valve Co., P. O. Box 444 H, Elizabeth, N. J. Uno Ventilator Co., 1236 Eastern Av., Malden 48, Mass. Utica Drop Forge & Tool Div. of Kelsey-Hayes Co., 2415 Whitesboro, Utica, N. Y.

Utica Products, Inc., Utica 4, N. Y.
Utility Body Co., 1530 Wood St., Oakland, Calif.
Utility Fan Corp., Div. of Utility Appliance Corp., 911 E. 59th St., Los Angeles 1, Calif.

Vacu-Blast Co., Inc., P. O. Box 885, Belmont, Calif.
Vac-U-Mation Div., F. J. Littell Machine Co., 4555 N. Ravenswood Ave., Chicago 40, Ill.

Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

Vacuum Gas Burner Corp., 132 N. 1st St., Olean, N. Y. Valco Corp., 1710 Roblyn Ave., St. Paul 4, Minn. Valley Electric Corp., 4221 Forest Park, St. Louis, Mo. Valley Forge Metals Corp., Lansdale, Pa.

Van Noorden Co., E., 100 Magazine St., Boston 19, Mass. Van-Packer Co., Div. of Flintkote Co., 1232 McKinley Ave., Chicago Heights, Ill. Vape-O-Plate Sales Corp., 1160 N. Parker Ave., Janesville,

Wis. Vega Industries, Inc., E. Brighton & E. Glen Ave., Syracuse 5, N. Y.

Vehicle Products Div., Robinair Mfg. Corp., Montpelier, O. Vendorlator Mfg. Co., 2550 S. Railroad Ave., Fresno, Calif. Ventfabrics, Inc., 640 N. Kedzie Ave., Chicago 12, Ill. Ventil-Aire Corp., 1815 Decatur St., Ridgewood 27, N. Y. Ventil-Ouver Co., Inc., 605 W. Washington St., Chicago, Ill. Vent-O-Lite Co., 4230 W. Taylor St., Chicago 24, Ill. Ventrola Mfg. Co., 501 Chestnut St., Owosso, Mich. Vernco Corp., 1804-22nd St., Columbus, Ind. Verson Allsteel Press Co., 1351 E. 93rd St., Chicago 19, Ill. Vibration Eliminator Co., 10-28 47th Av., Long Island City 1,

N. Y. Vibration Mountings, Inc., 98-25 50 Ave., Corona 68, N. Y. Victaulic Co. of America, P. O. Box 509, Elizabeth, N. J. Victor Equipment Co., 844 Folsom St., San Francisco 7, Calif.

Victor Equipment Co., 844 Folsom St., San Francisco 7, Calif. Victory Engineering Corp., 49 Springfield Road, Union, N. J. Victory Mfg. Co., Inc., 4039 Walden Ave., Lancaster, N. Y. Viking Air Products, Div. National-U. S. Radiator Corp., 5601 Walworth Av., Cleveland 2, Ohio. Viking Mfg. Corp., 1747 Chester Av., Cleveland 14, Ohio. Viking Pump Co., 410 State St., Cedar Falls 1, Iowa. Viking Shear Co., 1901 Raspberry St., Erie, Pa. Virginia Smelting Co., 1361 Jefferson St., West Norfolk, Va. Virginia Smelting Co., 136 Jefferson St., West Norfolk, Va. Vital Products Mfg. Co., 7500 Quincy Av., Cleveland 4, Ohio. Volcano Burner Mfg. Inc., 807 Zerega Ave., New York 72, N. Y. Vulcan Electric Co., Div. Consolidated Electric Lamp Co., Inc., 88 Holten St., Danvers, Mass. Vulcan Radiator Co., 775 Capitol Ave., Hartford, Conn.

Vyke Mfg. Co., 4158 Jason St., Denver 11, Colo.

W. G. B. Oil Clarifier, Inc., 139 Cornell, Kingston N. Y. Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J. Wabash Corp., 2300 S. Western Ave., Chicago 8, Ill. Wagner Awning & Mfg. Co., 2658 Scranton Rd., Cleveland 1. Wagner Electric Corp., 6400 Plymouth Av., St. Louis 14, Mo. Wagoner Corp., P. O. Box 9188, Nashville 4, Tenn. Wales-Strippit Inc., Akron, N. Y. Walker Mfg. & Sales Corp., 1711-1717 Penn St., St. Joseph 1,

Mo.

Walker Supply & Mfg. Co., 4375 2nd Ave., Ecorse, Mich. Wallace Co., William, Metalbestos Div., Belmont, Calif. Wallace & Gale Co., 115-119 S. Gay St., Baltimore 2, Md. Wall Colmonoy Corp., 19345 John R St., Detroit 3, Mich. Wall Tube and Metal Products Co., P. O. Box 330, Newport,

Tenn.
Waltham Oil Burner Co., Inc., 1214 Bennington St., E. Boston.
Walton Laboratories, Inc., 1186 Grove St., Irvington, N. J.
Wanson Corp., The, Charles & Juniata Sts., Lewistown, Pa.
Ward Leonard Electric Co., 98 South St., Mt. Vernon, N. Y.
Ward Machinery Co., 564 W. Washington Blvd., Chicago 6.
Warner Ventilator Co., LeGrange, Ind.
Warren Register and Grille, Inc., 3680 N. W. 50th St., Miami,

Wasco Products, Inc., Bay State Road, Cambridge, Mass.
Washington Steel Corp., Woodland Ave., Washington, Pa.
Wassco Electric Products Corp., 2032 2nd Ave., S., St. Petersburg 12. Fla.

Waste King Corp., Incinerator Div., 5227 Sweeney Ave., Cleveland 27, O.

Waterair Co., 15 Winchester St., Medford, Mass. Water Cooling Equipment Corp., 8601 New Hampshire Ave., St. Louis 23, Mo.

Waterloo Register Co., Inc., P. O. Box 72, Waterloo, Ia. Waterman-Waterbury Co., 1121 Jackson St., N. E., Minneapolis 13, Minn.

Watkins Co., J. E., 307 Lake St., Maywood, Ill.
Watervliet Tool Co., Inc., 1349 Broadway, Albany, N. Y.
Watson Co., H. S., 1316 - 67th St., Emeryville 8, Calif.
Waverly Heating Supply Co., 117 Elliott St., Beverly, Mass.
Wayne Home Equipment Co., Inc., 801 Glasgow Av., Fort Wayne 4, Ind.

Weatherful Engineers, Inc., 478 Smithfield Ave., Providence 4. Weatherbuster Corp., Camden, Ark.
Weatherhead Co., Ft. Wayne Div., 128 W. Washington Blvd., Ft. Wayne, Ind.

Weatherking of Florida, 2310 Coolidge Ave., Orlando, Fla. Webb Co., Jervis B., 8951 Alpine Ave., Detroit 4, Mich. Webber Co., Inc., A. R., 424 Howard Ave., New Haven 11,

Webster & Co., Inc., Warren, 1664 Federal St., Camden 5, N. J. Webster Electric Co., DeKoven & Clark Sts., Racine, Wis. Wedgelock Corp., 5446 Satsuma Ave., North Hollywood,

Weirton Steel Co., P. O. Box 431, Weirton, W. Va. Weksler Instruments Corp., 195 E. Merrick Rd., Freeport, N.Y. Welbilt Corp., Maspeth 78, L. I., N. Y.

Weldex Div. The Metal Craft Co., 18425 Weaver, Detroit 28. Weldit, Inc., 990 Oakman Blvd., Detroit 38, Mich.

Wellcome Engineering Co., Del., 5605 Virginia St., Clarendon Hills, Ill.

Wells Mfg. Corp., 1818 Wilson Av., Three Rivers, Mich. Welty-Way Products, Inc., 714 First Ave., N. W., Cedar Rapids,

lowa
Wendt Co., O. A., 1655 W. Fullerton Ave., Chicago 14, Ill.
Wen Products, Inc., 5808 Northwest Highway, Chicago 31, Ill.
Wer-Coy Fabrication Co., 2232 Beniteau St., Detroit 14, Mich.
Werner Co., Inc., R. D., 295 Fifth Av., New York 16, N. Y.
Wesix Electric Heater Co., 390 First St., San Francisco 5, Calif.
West Chester Chemical Co., Box 39, West Chester, Pa.
Western Auto Supply Co., 2107 Grand Ave., Kansas City, Mo.
Western Blower Co., 1800 Airport Way, Seattle 4, Wash.
Western Engineering & Mfg. Co., 4114 Glencoe Ave., Venice,
Calif.

Western Felt Works, 4029 Ogden Av., Chicago 23, Ill.
Western Precipitation Corp., 1000 W. 9th St., Los Angeles 15.
Western Wire Products Co., 1425 S. 18th St., St. Louis 4, Mo.
Western Wood Excelsior Mfg. Co., Commerce Station, Box 4411, Phoenix, Ariz.

Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30.
Westinghouse Electric Corp., Air Conditioning Div., Staunton,

Westinghouse Electric Corp., Appliance Div. Mansfield, O. Westinghouse Electric Corp., Lamp Div., Bloomfield, N. J. Westinghouse Electric Corp., Refrigeration Specialties Div., 653 Page Blvd., Springfield 2, Mass.

Westinghouse Electric Corp., Sturtevant Div., 105 Readville St.,

Hyde Park, Boston 36, Mass. West Wind Corp., 1800 Airport Way, Seattle 4, Wash. Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill. Wheeling Corrugating Co., Wheeling Steel Bldg., Wheeling, Wheeling Steel Corp., Wheeling Steel Bldg., Wheeling, W. Wheelock Co., Geo. F., The, 3017 S. Second Av., Birmingham 5. Whipple Sheet Metal Works, Inc., 913 E. Shiwassee, Lansing 12,

Mich.

Whirlwind Mfg. Co., 3520 Clinton, Houston, Tex.

White Motor Co., 3520 Clinton, Houston, 1ex.
White Motor Co., 842 E. 79th St., Cleveland, O.
White Products Corp., 98 E. Main St., Middleville, Mich.
White-Rodgers Co., 1209 Cass Ave., St. Louis 6, Mo.
White-Roll Engineering Co., 1630 S. Michigan Ave., Chicago.
Whitehead Mfg. Corp., D. W., 145 E. State St., Trenton 9, N. J.
Whiting Fire Power Products Corp., 1101 John Ave., Superior,
W. W. Wis

Whitlam Mfg. Co., J. C., Box 71, Wadsworth, O. Whitney Mfg. Co., W. A., 636 Race St., Rockford, Ill. Whitney Metal Tool Co., 702 Forbes St., Rockford, Ill. Whitty Co., Inc., 86 Western Av., Boston 34, Mass.

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